ABSTRACT

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# A COMPARATIVE STUDY OF PRINCIPALS' AND TEACHERS' PERCEPTIONS OF THE EFFECTS OF THE PAY-FOR-PERFORMANCE INCENTIVE PROGRAM IN GEORGIA SCHOOLS

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This quantitative study examined principals' and teachers' perceptions of the effects of the Pay-for-Performance (PfP) Program on four dependent variables: teacher motivation, parental involvement, quality of instruction, and student achievement. School location and school size were considered as moderating variables. The study involved 138 teachers and 23 principals from 16 large ($> 600$) and small ($\leq 600$) schools across the state of Georgia.

Data were collected through a questionnaire and the Georgia Department of Education database. These were analyzed through *t* tests, analysis of variance, and Pearson *r* correlation.

The findings of the study were as follows. The teachers' perceptions of parental involvement, teacher motivation, and quality of instruction during PfP were significantly different from before PfP. The teachers' perceptions of teacher motivation were higher than the principals' perceptions. The third grade reading and math, fifth grade math, and eighth grade math had a positive mean gain during PfP. However, the eighth grade math maintained its mean national percentile (NPR) score from one year to the next, and the fifth grade reading decreased by 0.7 national percentile points. The PfP had a positive relationship on all dependent variables and was not affected by the schools' location (metro and nonmetro).

On school size, the principals and teachers in small schools perceived parental involvement to be significantly higher than respondents from larger schools. Also, the educators in small schools believed the quality of instruction and teacher motivation to be greater than did the educators from small schools.

Georgia principals and teachers generally perceive that the Pay-for-Performance Progarm is a positive school initiative that affects the education of students, particularly in the areas of parent involvement, student achievement, and quality of instruction.

# A COMPARATIVE STUDY OF PRINCIPALS' AND TEACHERS' PERCEPTIONS OF THE EFFECTS OF THE PAY-FOR-PERFORMANCE INCENTIVE PROGRAM IN GEORGIA'S SCHOOLS

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# CHAPTER I

## INTRODUCTION

During the 1900s there were numerous efforts invested in the field of education to help students achieve academic excellence and become productive citizens. Many educational reforms were remedies for ineffective school programs and/or strategies. According to Finn (1990), some remedies included early childhood programs such as Head Start, Pre-Kindergarten, and Title I. Other reform strategies focused on factors such as: (1) a lower teacher-pupil ratio; (2) supplementary instructional programs, such as school-based tutorial classes; (3) homework assistance hotlines; (4) better prepared teachers and administrators; (5) higher pay for educators; (6) compulsory homework programs; and (7) incentive pay programs. Those reform efforts were designed to improve the quality of student learning in our schools.

However, many societal issues contribute to poor student academic performance in today's schools, such as: (1) a change in family structure, (2) a high family mobility rate, (3) drugs and violence in both the living and school

environments, (4) teenage pregnancy, (5) poverty, (6) economic conditions, and (7) family hardships. The restructuring and reform efforts are tentative solutions to the many ills in the educational arena and target low student achievement.

Merit pay, the focus of this study and one of the many programs used in educational reform, was extremely popular in the late 1970s and the 1980s. In the 1990s, there is a resurgence of interest in the issue of incentive pay and higher academic achievement as evidenced by the multitude of articles appearing in newspapers, magazines, and journals; by media publicity on television; and from public platforms expressed by concerned citizens, school board members, educators, governors, state and federal legislators, and even the President of the United States. Society is demanding that schools do a better job of educating youth. According to Roy Romer, 1990-1991 Chair of the National Educational Goals Panel and Governor of Colorado, "It is imperative that we make education the most important business in the nation, in our state, and in our individual lives. The shape and course of our future will be determined by our collective response" (National Education Goals Panel 1991, 1).

The results from schools in the past are no longer sufficient for individuals in the twenty-first century.

Renewed national interest in quality education is prompting state and local school districts to investigate possible solutions that will bring lasting improvements in American education. American educators and governmental leaders are involved in the search for new ways to improve the quality of education in the schools of the United States. An increased interest in incentive pay is stimulated by public concern over the quality of education rendered in our schools, the demand for higher salaries by teachers, the need for higher quality students to pursue careers in education, and professional employee shortages in the field of education. Incentive pay for educators echoes the sentiments of former Tennessee Governor Lamar Alexander, who claimed that "virtually every other important part of the American workplace has found some fair way to pay more money for doing a good job and, consequently, there's absolutely no reason we can't do it in public school teaching" (quoted in Loozen 1983, 5).

Incentive pay programs for teachers, which include monetary incentives, master teacher plans, career-ladders, and performance-based pay, have sparked public support. Americans perceive incentive pay programs as a means to improve the quality of education in the nation's schools, as evidenced by statements in President Clinton's recent State of the Union address in January 1998 (U.S. Department of

Education 1998). Georgia Governor Zell Miller initiated an incentive pay program, Pay-for-Performance (PfP), for Georgia's educators (Georgia Department of Education 1996). In addition, under Governor Miller's leadership, the legislators also passed legislation that guarantees educators an annual raise of 6 percent through Governor Miller's term in office, which ended in January 1999.

Georgia's educational mission is to increase student achievement and maximize parental and community involvement in all schools in the state. The Pay-for-Performance Program specifies factors considered important for its success (Georgia Department of Education 1997). Key stakeholders pay meticulous attention to measuring a school's performance results, to rewarding the individual school's performance results, and to rewarding the individual schools that meet the proposed objectives.

As educators and school improvement plans move in a positive and constructive direction, more facts and information about the issues of incentive pay are needed. In addition to educational leaders comparing and investigating contemporary incentive pay plans, it is an equally important issue to determine the opinions and attitudes of select groups who are directly involved with implementing such a program. The success or failure of any venture can often be

attributed to the attitudes of those responsible for instituting the program. Considering the viable role that attitudes can play in any situation, it is apparent that the attitudes of personnel directly involved with incentive pay warrant an investigation relative to this issue.

## Purpose of the Study

There is a desperate need for schools and school systems to implement some type of educational reform that will help students become more successful in school. Although incentive pay programs have been a primary focus since the 1970s, for Georgia, the Pay-for-Performance Program is a popular program for the 1990s, geared toward school-wide performance objectives attached to monetary rewards.

The purpose of this investigation is: (1) to examine the perceptions of principals and teachers regarding the Pay-for-Performance Program as it relates to selected variables, such as parental involvement, teacher motivation, student achievement, and the quality of instruction; and (2) to determine if there are differences or relationships in the perceptions of principals and teachers relative to the Pay-for-Performance Program.

## Background of the Problem

Much of the current interest in incentive pay can be attributed to a major report, A Nation at Risk: The Imperative for Educational Reform, published in 1983 by the bipartisan National Commission on Excellence in Education. In this document, there was a call for teachers' pay to be market sensitive and performance based, with better teachers enjoying higher rank and higher pay. That idea joined with the views of the Puritan work ethic: "Workers should be paid on the basis of their skills and performance" (Educational Research Service 1983, 1). Since A Nation at Risk was published, several dozen major reform reports have been published that support the reality that the American education system fails to provide a large percentage of students with the education that is needed to succeed in today's society (Cross 1987).

Another report, issued by the Education Commission of the States (ECS), also sparked interest in incentive pay. Members of the ECS Task Force on Education for Economic Growth (1983, 5) recommended "that the states--with full participation by teachers themselves--drastically overhaul and improve their methods for recruiting, training, and compensating teachers." Those improvements, the task force agreed, should include: extraordinary rewards for extraordinary teachers, expanded pay potential for teachers as

they reach the upper levels of seniority and effectiveness, and special financial incentives for teachers keyed to differing responsibilities and filling critical needs in certain subject areas.

In the 1980s, President Reagan supported the merit pay concept with pronouncements in support of merit and master teacher programs. Speaking to a gathering of state teachers of the year, the President said, "If we want to achieve excellence, we must reward it . . . . It's a simple American philosophy that dominates many other professions, so why not this one?" (quoted in Loozen 1983, 5).

Public support for improvements in our American educational system was witnessed at the National Governors' Convention in 1989, when the governors established six national goals, which later became the basis for eight National Goals to be achieved by the year 2000. Several other groups supported incentive pay programs for teachers. The National Commission on Excellence in Education, the National Science Board, the National Association of Secondary School Principals, the American Association of School Administrators, and the National Association of Elementary School Principals have recommended that merit systems and incentive rewards be used in pubic education. The public, in general, endorsed basing teachers' salary on merit. However, not all teachers seemed to favor performance-based rewards,

and the National Education Association also consistently opposed the idea over the years (Farnsworth, Debenham, and Smith 1991).

A Carnegie report (Carnegie Forum on Education and the Economy 1986) stated that America is in a trap of its own making. A serious functional literacy problem exists that must be corrected. Not all children master the basic skills, yet they are continually passed along from one grade level to the next. During the last few years, while many schools have shown some gains in standardized test scores, too many students are deficient in the ability to reason and perform complex, nonroutine, intellectual tasks (Carnegie Forum 1986). On a personal level, students, parents, and teachers perceived that a basic promise was not being kept. More young Americans left high school ill-prepared for college or the job market. While the knowledge base was rapidly expanding, the number of traditional jobs was shrinking. Newly developed jobs require greater preparation (National Commission on Excellence in Education 1984). Copperman stated:

> Each generation of Americans has outstripped its parents in education, in literacy, and in economic attainment. For the first time in the history of our country, the educational skills of one generation will not surpass, will not equal, will not even approach those of their parents (quoted in National Commission on Excellence in Education 1984, 13).

The changing status of the world economy makes it necessary not only to reverse the decline in school performance, but also to reach higher standards than ever before (Carnegie Forum 1986). Excellence in education depends primarily upon recruiting and retaining the best classroom teachers at a time when American schools face serious problems recruiting and retaining high-caliber graduates. While the teaching profession has historically attracted college graduates who scored below average, both the quality and number of those entering the education profession are declining (Ballou and Podgursky 1997, Carnegie Forum 1986, National Commission on Excellence in Education 1984).

Teachers receive relatively low salaries and low prestige. Many educators fail to have access to a staged career with an opportunity for advancement. High School: A Report on Secondary Education in America (Boyer 1985) reported that teachers were deeply troubled about salaries, loss of status, and the lack of recognition and rewards in their profession. Educators' salaries are not generally commensurate with the training, skills, and responsibilities of the profession. The drive for excellence in education must begin by confronting these conditions. The educational environment must include high expectations for and from students, teachers, and administrators with commensurate

rewards for meeting these expectations (Ballou and Podgursky 1997, Carnegie Forum 1986, Cross 1987).

Public school reform seems to center jointly on teacher quality (how to attract and train better teachers), and on the quality of the school workplace, (how to make the environment more conducive to good teaching) (Cross 1987). As standards, responsibilities, and expectations increase, compensation must also increase. Teachers who assume extra responsibilities and are judged to be effective by generally accepted criteria must be rewarded accordingly (Ballou and Podgursky 1997, Carnegie Forum 1986). However, improved compensation for educators requires additional funding for education. The Carnegie Forum report (1986) stated that many polls indicated that Americans would be willing to finance significant increases in school funding if they could be convinced that significant improvements in performance would follow.

While merit or performance-based pay and incentive pay have become popular, there are some controversial issues in the national debate over the improvement of education (Cross 1987). The basic concept underlying most merit pay proposals is that teachers can be motivated to perform more effectively if some form of monetary incentive is available for outstanding performance (Duttweiler 1988). In its pure form, merit pay is a compensation system in which workers'

pay is based upon their performance. Workers who exhibit poor performance earn less, while workers who exhibit good performance earn more. In education, incentive pay can come in many forms, with merit being the determinant of only part of a teacher's income.

## Pay-for-Performance Program

Concerned about excellence in education, the state of Georgia has focused upon improving the quality of education, teachers' salaries, and teacher productivity by looking at the established criteria. In response to these concerns, on May 7, 1992, Georgia Governor Zell Miller signed into law Code 1981.20.2.213.1, enacted by Georgia Law 1992, p. 3164, 1, also known as the "Pay-for-Performance for rewarding group activity" (Georgia School Laws 1992). The main goal of that law was to enhance the overall educational performance of schools in areas related to student outcomes and achievement as adopted under the National Goals 2000 (Georgia School Laws 1992).

> The Pay-for-Performance (PfP) is a school improvement program designed to promote exemplary performance and collaboration at the school level with monetary rewards for groups (incentive pay). Comprehensive and systematic improvement efforts are encouraged in order to improve learning for all students. The program is open to all K-12 public schools in Georgia (Georgia Department of Education 1997, 1).

According to the Code of Georgia (Georgia School Laws 1992), proposals shall be submitted by local schools or systems for the determination of exemplary performance at the school site. "Performance objectives must be developed in four broad categories: academic achievement, client involvement, educational programming, and resource development" (Georgia Department of Education 1997, 1). If these objectives are achieved within a school, the school receives a monetary allotment equivalent to $2,000 per full-time certified teacher. As a collective group, the staff members in a school decide how the money is to be spent. Schools that have won incentives have spent the funds in various ways, including: (1) dividing the funds among the staff members, (2) spending it on the school, (3) awarding individual bonuses, and (4) spending it on school programs and projects (Georgia Department of Education 1997).

The chief administrator at any particular school site in the state of Georgia is the principal. The principal is responsible for monitoring and assessing both staff and student performance. Administrators along with the school staff write, implement, and carry out the goals stated in the proposal. They also are responsible for the submission of the school's annual proposal to the Georgia Department of Education. This places the school-level administrators in a position of being able to provide informed insight into the

effectiveness of Georgia's Pay-for-Performance Program and its effects on parental involvement, as well as student and staff performance in their schools.

According to the State Superintendent of Schools, Linda Schrenko (Georgia Department of Education 1996, 1):

> Our staff has done an excellent job of training sessions in the last year and had over six hundred participants in each session. Although all applicant schools did not receive the award, making a very public statement about their desire to attain excellence.

"Pay-for-Performance is an excellent name, because the program inspires local schools to set higher goals and then to work hard over the next year to attain those goals," Schrenko added (Georgia Department of Education 1996, 1).

Table 1 shows statistics for the Pay-for-Performance (PfP) Program by school year (Georgia Department of Education 1996, 1-2).

## Statement of the Problem

Since implementing the Pay-for-Performance Program, the state of Georgia has spent $13,060,000 to fund local schools who have applied and successfully met the performance objectives. During the first few years of Georgia's PfP Program, less than 1 percent of its total schools won the incentive. During the 1996-97 school year, 3 percent of Georgia's middle and elementary schools won the incentive

TABLE 1

PAY-FOR-PERFORMANCE PROGRAM BY SCHOOL YEAR

| School Year | # Submitted | # Approved | # Awards | $ Amount per Year |
|---|---|---|---|---|
| 1993-94 | 67 | 18 | 10 | $1,048,000 |
| 1994-95 | 100 | 45 | 19 | $1,782,000 |
| 1995-96 | 100 | 37 | 29 | $3,096,000 |
| 1996-97 | 228 | 91 | 59 | $6,694,000 |

Notes:

1. # Submitted = Number of initial applications submitted March 1.
2. # Approved = Number approved out of the total number of March 1 applications.
3. # Awards = Number of approved applications that received a PfP award.
4. $ Amount = Total amount of PfP dollars awarded per year (Georgia Department of Education 1996, 1-2).

pay. According to Weber (1988), at the onset of the 1980s, only about 4 percent of the schools in the United States had an operational merit plan.

The majority of schools in Georgia have not participated in this program. Factors such as school size and school location contribute to a school's decision to participate or not to participate in the incentive program. This researcher ponders if the expenditure of $12,620,000 produced the results that were expected by the state, as

perceived by Georgia's school level principals and teachers. This kind of expenditure causes one to reflect on the investments and the improvements that were made on parental involvement, teacher motivation, student achievement, and the quality of instruction, all of which are performance objectives of the Pay-for-Performance Program.

Too many students are not performing academically in our public schools, especially those from lower socioeconomic backgrounds and minorities. The present bureaucracy and traditional methods are not working. Educational stakeholders and others must find a way to help all students become successful in school so that they become contributing citizens in life. The vast amount of research from the corporate and public school sectors indicates that incentive pay programs are instrumental in attaining organizational objectives. The Pay-for-Performance Program may be that avenue to foster student achievement and exemplary teacher performance. The implementation of innovative and new programs, through educational reforms, is to motivate teachers and better prepare students for the twenty-first century. Society's future depends on the positive experiences that children encounter in school today.

## Significance of the Study

This study will add to the body of knowledge about the effects of the Pay-for-Performance Program on Georgia school efforts and give some indication of the possible effects of supplemental and performance-based pay plans on school performance.

Presently, very few schools have applied, have been approved, or have won the state's incentive pay. Findings from this study will provide schools data that will indicate the worthiness of participating in the Pay-for-Performance Program. In addition, the results of this study will add more information to the body of knowledge on Pay-for-Performance incentive programs as school-wide improvement plans. This study will show, as measured by the perceptions of Georgia principals and teachers, if increased monetary rewards provided by Pay-for-Performance have resulted in improved teacher and student performance.

## Research Questions

The following research questions were developed to guide this study:

1. Is there a relationship between parental involvement before PfP and parental involvement during PfP as perceived by principals?

2. Is there a relationship between parental involvement before PfP parental involvement during PfP as perceived by teachers?

3. Is there a relationship between teacher motivation before PfP and teacher motivation during PfP as perceived by principals?

4. Is there a relationship between teacher motivation before PfP and teacher motivation during PfP as perceived by teachers?

5. Is there a relationship between quality of instruction before PfP and quality of instruction during PfP as perceived by principals?

6. Is there a relationship between quality of instruction before PfP and quality of instruction during PfP as perceived by teachers?

7. Is there a difference between parental involvement before PfP and parental involvement during PfP as perceived by principals?

8. Is there a difference between parental involvement before PfP and parental involvement during PfP as perceived by teachers?

9. Is there a difference between teacher motivation before PfP and teacher motivation during PfP as perceived by principals?

10. Is there a difference between teacher motivation before PfP and teacher motivation during PfP as perceived by teachers?

11. Is there a difference between student reading achievement before PfP and student reading achievement during PfP in terms of (a) Grade 3, (b) Grade 5, and (c) Grade 8?

12. Is there a difference between student math achievement before PfP and student math achievement during PfP in terms of (a) Grade 3, (b) Grade 5, and (c) Grade 8?

13. Is there a difference between quality of instruction before PfP and quality of instruction during PfP as perceived by principals?

14. Is there a difference between quality of instruction before PfP and quality of instruction during PfP as perceived by teachers?

15. Is there a difference between the principals' and the teachers' perceptions of Pay-for-Performance and parental involvement in terms of school size?

16. Is there a difference between the principals' and the teachers' perceptions of Pay-for-Performance and parental involvement in terms of school location?

17. Is there a difference between the principals' and the teachers' perceptions of Pay-for-Performance and teacher motivation in terms of school size?

18. Is there a difference between the principals' and the teachers' perceptions of Pay-for-Performance and teacher motivation in terms of school location?

19. Is there a difference between the principals' and the teachers' perceptions of Pay-for-Performance and quality of instruction in terms of school size?

20. Is there a difference between the principals' and the teachers' perceptions of Pay-for-Performance and quality of instruction in terms of school location?

## Summary

In countless Georgia schools, standardized test scores in reading comprehension and mathematics are below the 50th percentile for many students. Students are leaving school inadequately prepared to meet the challenges of the workforce or college. Therefore, large numbers of students begin college careers taking developmental courses, and it is often necessary for businesses to reeducate workers on skills that should have been mastered in high school. In an effort to alleviate these problems, school systems throughout the country, along with our national leaders, have focused on offering incentive pay to attract and retain the most qualified and talented instructional staffs. However, is this a solution to the problem? Will more pay motivate an individual to produce better results? Such a reform requires

that all aspects of the school organization, including the perceptions of personnel, be restructured.

Chapter II presents a review of the related literature. The literature focuses on studies and information relative to the Pay-for-Performance concept and the selected variables in this study.

# CHAPTER II

# REVIEW OF THE RELATED LITERATURE

In this chapter, a review of selected literature pertinent to the study is presented. The school reform movement, incentive pay as a reform strategy, and the advantages and disadvantages of incentive pay are discussed. The Georgia Pay-for-Performance Program is reviewed, as well as its impact on parental involvement, teacher motivation, student achievement, and the quality of instruction.

## The School Reform Movement

The common theme raised by all of the reform reports is the need for the development, adoption, and implementation of incentive and merit pay systems that adequately reward teachers for their work, based upon the quality of their work (Alexander 1986, Carnegie Forum 1986, EETF 1984, Nathan 1986, NCEE 1984). Every state has enacted or is considering implementing educational reforms, from upgrading curricula to raising teachers' salaries and rewarding good teaching. However, state governments should consider four areas for improving the quality of teaching in American

schools. First, teacher education and certification requirements should be upgraded. Second, those school districts that develop and implement incentive programs should be provided with financial assistance. Third, statewide incentive programs should be established. Fourth, the state should provide technical assistance for planning and implementing incentives to improve the quality of teaching (Cresap et al. 1984).

Three major responsibilities fall within the province of the federal government when the problems that face school excellence are addressed. First, financial assistance should be provided to help qualified students enter teaching, especially in areas of national shortage. Second, local school districts should receive federal grants to demonstrate the effective use of a range of incentives to improve the quality of teaching. Third, federal funding should support research about the impact and effectiveness of varied incentives in school districts and states (Cresap et al. 1984).

Georgia's Governor, Zell Miller, focused on results in education and wanted to make a lasting impact on education in his state. He was not satisfied with the status quo. This governor expended funds for the Pre-Kindergarten Program for four-year-olds and the HOPE Scholarship Program for high school graduates with a 3.0 GPA. Miller attempted to

raise teachers' salaries to the national average and provided funding for teachers in areas with critical shortages in an attempt to improve the educational attainment in the state of Georgia. Governor Miller believed that highly educated citizens are vital to economic development because states that have invested in education have attracted new industry within their borders (Nathan 1986).

Governors are willing to work for increased funding for education, as long as they can show the public that the funds will have a positive impact on student achievement (Nathan 1986). Alexander (1986, 202-203) stated:

> The governors are ready for some old-fashioned horse trading. We'll regulate less, if schools and school districts will produce better results. Real excellence cannot be imposed from the distance. Governors don't create excellent schools--local school leaders, teachers, parents, and citizens--do.

Former National Education Association (NEA) President Mary Hatwood Futrell warned governors that the recommendations of the "Time of Results" will be costly and will work only if sanctioned at the local levels by teachers and principals. Albert Shanker, president of the American Federation of Teachers (AFT), agreed with Futrell that the governors should find funds to enact their recommendations. He also urged educators not to wait for everything to be prefect before beginning to make changes in the way they do things (Nathan 1986).

State legislatures and departments of education have responded with a myriad of educational improvement programs that fall into two general categories, according to Odden and Allan (1995). The first type of program is school-based and primarily involves local school people in planning, problem solving, and program implementation. The second type is instructionally focused and is designed to improve the skills of teachers and administrators.

There are a number of state programs in the category of instructionally focused. Maryland's School Improvement Through Instructional Process Program aims at expanding and strengthening the pedagogical skills of experienced teachers. Beginning teachers are the focus of Georgia's Teacher Appraisal Program, which includes assessment of new teachers and on-the-job skill development. Hunter's master learning provides the core of Missouri's Instructional Management System, while Arkansas' Program for Effective Teaching targets the improvement of both the instructional skills of teachers and the supervisory skills of administrators. States with instructionally focused programs view improved teaching and better instructional supervision as elementally crucial to educational improvement.

## Incentive Pay as a Reform Strategy

Incentive pay is a compensation scheme that arrived in the late 1800s, about the same time that schools shifted from the one-room schoolhouse to graded schools. Many states adopted a grade-based salary schedule in an attempt to address the problem of high teacher turnover (English 1992). Meanwhile, in individual cities, teachers were paid based on their years of experience, gender, race, and the grade level that they taught. This is when school administrators first factored a subjective measure of merit into the teachers' salaries (Tyack and Strober 1981). In Boston, for example, salary pay in 1876 was based on the grade level a teacher taught, and where the teacher fell within that range reflected years of experience and the administrators' assessment of the teacher's merit (Katz 1987).

In 1921, Denver and Des Moines became the first cities to introduce the single salary schedule for teachers based solely on a teacher's years of experience and level of academic preparation (Sharpes, 1987). That compensation system was so named because all classroom teachers in the city were paid on the same scale, regardless of gender, race, grade level taught, or family status of the teacher (Educational Research Services 1978). When a 1944 National Education Association report stated that any existing measure of teacher merit used to determine pay under the

grade-based salary schedule was unreliable, cities rapidly responded by following the lead of Denver and Des Moines. By 1950, 97 percent of all schools had adopted the single salary schedule (Sharpes 1987).

The single salary schedule operates as a matrix structure of dollar amounts in columns and rows. The columns, also called "scales" or "lanes," represent teachers' levels of educational attainment, such as bachelor's degree, master's degree, specialist degree, and doctorate degree. The rows, frequently called "steps," represent years of teaching experience. Any individual teacher's salary is determined by locating the cell on the schedule that corresponds to the educational level and years of teaching experience. Pay raises occur at predictable intervals as the teacher advances within the matrix by gaining experience and/or by furthering education (Clardy 1988).

The fact that the single salary schedule has remained the primary method of paying teachers for so long testifies to its advantages. It addresses equity and objectivity because salary increases are no longer partially based on what teachers viewed as arbitrary administrative assessment of their merit. Additionally, school districts can accurately budget funds because the salary schedule

promotes certainty and predictability of annual salary costs.

However, the single salary schedule does have its problems. With the single salary schedule, teachers are encouraged to continue taking more and more graduate-level college courses, many of which are often not directly related to their teaching assignments, in order to move to the right on the schedule (Clardy 1988). However, there is little evidence that any graduate education per se improves classroom teaching. There is evidence that experience is related to teaching effectiveness, but the relationship is strong only for the first few years of teaching (Ferris and Winkler 1986). Therefore, the single salary schedule fails to provide teachers with incentives to improve their skills in the classroom.

Perhaps the most common criticism of the single salary schedule is that it treats teachers with the same educational level and experience as equals, despite unequal performance and skills (Lipsky and Bacharach 1983). As far back as 1867, Aaron Sheeley, the school superintendent in Adams County, Pennsylvania, claimed that paying all teachers the same wages "offers a premium to mediocrity, if not to positive ignorance and incompetency. Inducements should always be held out to teachers to duly qualify themselves for their work" (English 1992, 5). It was that type of

criticism that led to the popularity of the many performance-based compensation schemes tried in the late 1980s, such as merit pay and career ladder programs.

The 1983 A Nation at Risk report recommended that teacher salaries be "professionally competitive, market-sensitive, and performance-based" (National Commission on Excellence, 1983, 30). The goal of performance-based pay systems was directly tied pay to classroom skills, while the single salary schedule solely rewarded experience and education. The more direct the link between pay and performance, the greater the level of accountability teachers had to both educational administrators, students, parents, and the public at large. Districts and states across the nation responded to A Nation at Risk with a flurry of activity by establishing merit pay, career ladders, and other incentive pay programs for teachers, most of which were unsuccessful.

## Advantages and Disadvantages of Incentive Pay

The first recorded merit pay plan for teachers was established in Massachusetts in 1908 (Loozen 1986). Interest in such plans grew rapidly and reached a peak in the 1920s. That interest diminished to the extent that merit pay plans were practically nonexistent in the 1930s and 1940s.

Interest was revived in the 1950s, with some state legislatures enacting state mandates for merit plans. Use of such plans reached a high point in the 1960s and began to decline again in the early 1970s. Following the issuance of the United States Department of Education report, A Nation at Risk, merit pay again surfaced as the vehicle to solve the nation's educational ills. Therefore, the rebirth of that concept was primarily the result of education reformers and the Reagan administration in the early 1980s.

Merit pay plans award teachers pay bonuses for excellent classroom performance, usually determined by supervisor and peer review. A wide variety of merit pay programs have been tried in districts across the nation, meeting with great publicity and varying success. One district plan that typifies the ups and downs associated with merit pay is in Fairfax County Public Schools District, Virginia. Adopted in 1987, the plan was fully implemented in the district's 165 schools by the 1987-1990 school years. Bonuses equal to 9 percent of salaries were awarded each year for four years to teachers deemed "skillful" or "exemplary" (Hatry, Greiner, and Ashford 1994, 131-136). The plan was suspended in 1992 due to budget cuts, then restored to a scaled-down version in 1994. While there is public support for this plan, the two major teacher organizations, the AFT (American Federation of Teachers) and the NEA

(National Education Association), believe that the plan is too costly and that it undermines teacher collegiality by creating a competitive work environment (Richardson 1992).

The Georgia Association of Educators (GAE) is also opposed to merit pay. In 1984, delegates to the GAE Annual Convention adopted the following policy on merit pay that has consistently been reconfirmed by the association:

> The Association continually seeks opportunities to improve education in Georgia but believes that merit pay is not a solution to the problems of providing quality public education for Georgia students. Serious discussion of the possible need for merit pay proposals should not begin until salaries reach the national average, teacher preparation programs are strengthened, QBE is fully implemented, evaluation of personnel is performance based, staff development programs are strengthened and current certification requirements are enforced (Georgia Association of Educators 1991, 1-2).

These criticisms are like those of other merit pay plans across the nation. According to a 1979 Educational Research Service study, most merit pay plans are discontinued within six years, largely due to problems of administration and personnel, collective bargaining, and budgetary shortfalls (English 1992), a conclusion also reached by Murnane and Cohen (1986).

Positive attributes are attached to the Arizona merit pay program, known as a state-funded, career-ladder program. Students taught by Arizona's teachers in the career-ladder program show increased achievement, lower

dropout rates and increased graduation rates (Cornett 1994). These improvements are especially great in districts where the career-ladder program focuses on developing and improving teachers' classroom skills (Conley and Odden 1994).

Overall, in a study of eighteen school district programs since 1983, Hatry, Greiner, and Ashford (1994) found that some districts reported positive effects, such as reduced teacher turnover and absenteeism; however, most districts were unsuccessful in creating lasting and effective incentive plans. On the other end of the scope, some districts cited significant teacher morale problems stemming from competition, unfair evaluation practices, and the use of quotas in determining the number of teachers to receive awards. Programs were also costly (when funding was stable) and were difficult to administer (Hatry, Greiner, and Ashford 1994).

## Pay-for-Performance: An Incentive Program in Georgia

Pay-for-Performance (PfP) is a voluntary one-and-one-half-year school improvement and incentive program designed to promote exemplary student achievement, client (parental) involvement, and faculty collaboration. In March of each year, applicant schools submit proposals that provide detailed descriptions of performance objectives,

which indicate what the school will do to promote exemplary performance. Each proposal must include a thorough description of how the performance objectives will be achieved and evaluated. A trained PfP Reader Panel reads and rereads the proposals. The panel is designed to be representative of all school systems in the state.

The performance objectives must address four areas: academic achievement, client involvement, educational programming, and resource development. These objectives represent a contract with the Department of Education and must be judged by the reader panel to be exemplary. The criteria for success must be clearly described before a school is approved for participation in the program. Lastly, a school must achieve at least 80 percent of its performance objectives to receive a Pay-for-Performance award. Successful schools receive $2,000 per full-time, certified staff member (Georgia Department of Education 1996). The end result and, hopefully, lasting result is school-wide improvement.

## Teachers' Perceptions on Incentive Pay

It has been found that most teachers, when given the chance, choose to receive additional pay for more work rather than for demonstrating high performance. In addition, teachers who participate in incentive programs are positive

about the programs; those who do not are negative. However, teachers who philosophically disagree with the idea of pay for performance will probably never see any type of incentive program working (Cornett and Gaines 1994).

## Parental Involvement

The Pay-for-Performance Program attempts to promote client (parent) involvement. Most educators recognize parental involvement in school activities and in the student's schoolwork as integral to successful student academic performance. Comer and Haynes (1991) found parental participation in a child's education to be essential for effective teaching and learning. Comer and Haynes described three general ways in which schools might enhance parental involvement by having parents (1) participate in school events and activities, (2) help in the classroom and school programs, and (3) participate in parent groups.

Another researcher, James Griffith (1996), investigated the relationship between parental involvement and student academic performance. Griffith surveyed forty-two elementary schools to examine the relation of parental involvement and empowerment to student academic performance. Results showed that measures of parental involvement and empowerment could be reliably predicted. Multiple regression analyses showed that parental involvement and empowerment

accounted for substantial variances in the students' standardized test performance. Positive relations of parental involvement to student test performance were largely unaffected by the schools' characteristics or the socioeconomic, racial, and ethnic composition of the student populations (Griffith 1996).

Educators and researchers have speculated on the nature of relations between parental involvement and student academic performance, but empirical results are equivocal (Reynolds, Weissberg, and Kasprow 1992). In one study, Reynolds et al. (1992) examined variables related to early school adjustment among inner-city kindergarten and first-grade students. They used two teacher-rated scales to assess parental involvement. The first scale asked teachers to rate the frequency of parent participation in school activities. The second scale asked teachers to rate the perceived quality of parent-student relationships. Teachers' perceptions of the quality of parental involvement were significantly and positively related to competency in reading comprehension and mathematics problem solving and to school absences. Teachers' perceptions of actual parent participation showed similar relations with the adjustment measures, although those relations were lower in magnitude. Reynolds et al. (1992) noted that the majority of variance in the five measures of school adjustment was accounted for by

prior adjustment and student sociodemographic characteristics.

In a rare longitudinal study conducted over two consecutive years, Reynolds (1992) collected data from parents, teachers, and students regarding perceptions of parental involvement. He also gathered data on reading and mathematics test performance from participants who were primarily low-income, minority students. The measure of parental involvement was a 21-item scale that assessed the frequency of parent behaviors at school (e.g., participate in school activities) and at home (e.g., read to the child). Parental involvement and the achievement tests had low to moderate positive correlations. Teachers' perceptions of parental involvement had the highest correlations with student achievement. Regardless of the source, perceptions of parental involvement significantly predicted student achievement in both years.

Earlier studies showed similar relations between parental involvement and student academic performance. Stevenson and Baker (1987) found a positive relation between parental involvement and the student's school performance in a sample of 179 grade school children, parents, and teachers. They also observed that parents of high educational attainment whose children were in lower grades reported higher levels of involvement than did parents of

low educational attainment. Parental involvement was measured by having teachers rate the frequency of parents attending school events.

The findings of the studies presented support the contention that parental involvement is an important element in a student's academic performance. Parental involvement was consistently correlated with student test performance.

To increase parent attendance at school activities, schools might coordinate with the parent-teacher associations to provide transportation and day care services during school events. School staff and parent volunteers might conduct follow-ups with parents to determine reasons for nonattendance.

## Teacher Motivation

School administrators agree that motivation is crucial in the organization. As to how to actually achieve it and/or define it, all administrators are not in total agreement. John Miner (1988, 158) defined motivation as "those processes within an individual that stimulates behavior and channels it in ways that should benefit the organization as a whole." Gary Johns (1983, 173) stated, "Motivation means three things: The person works hard; the person keeps at his or her work; and the person directs his or her behavior toward appropriate goals." For this study

the researcher will use the definition of motivation to mean that a person exerts self-effort toward and is persistent in working toward the organization's goals.

Hersey and Blanchard (1977) indicated that the motivation and behavior of individuals was really a search for answers to perplexing questions. Freud (1927) suggested that the motivation for the actions of individuals was not always evident to the individuals themselves. Research by Mayo (1924) implied that some human actions were based on how much attention was directed toward individuals. One common complaint noted by teachers related to "lack of recognition." Maslow (1970) claimed that certain human needs, as described in his five-tier hierarchy of needs, motivated individuals. Herzberg had a theory about motivators. He felt that basic needs, which he called hygiene factors, did not serve as motivators but, if absent, they served as demotivators. Certain other factors, which he called motivators, encouraged people toward a higher quality of performance. Alderfer developed the ERG theory, which suggested that existence needs, relatedness needs, and growth needs motivated individuals (Lunenburg and Ornstein, 1991).

Peter Hutchinson, superintendent of the Minneapolis schools, recognized that the centerpiece of his school system was a performance objective, called student

achievement, which was measured largely by test scores. Additionally, he believed that money had a motivating power that could drive school administrators and teachers to be more accountable to their communities (Bushweller 1997).

## Student Achievement

For the past fourteen or so years, policy makers, educators, and community members have been working to improve student achievement by reforming the public education system. However, progress has been slower than desired, and questions persist about which reforms return the most benefit for the money, time, and effort invested.

Mary Fulton (1996), a policy analyst with the Education Commission of the States, reported that student performance was improved by: (1) laying a strong foundation before a child enters school, (2) focusing on essential skills in the early grades, (3) expecting all students to take a challenging curriculum and advanced courses, (4) building teachers' knowledge and skills, and (5) creating a school environment conducive to successful teaching and learning.

A recent article in The Atlanta Journal-Constitution titled, "Applying '3 Rs' to Teachers" (Suggs 1998), referred to teachers receiving a minor in reading during undergraduate college course work to learn how to teach reading. With

that one reform, future teachers would be better prepared to teach fundamental subjects, such as reading and math. At present, many teacher preparation programs require that prospective elementary school teachers take one or two reading courses. A proposal requires that they take about eighteen hours of reading and math (Suggs 1998). This proposal is expected to be approved by the University System of Georgia's Board of Regents and concurs with Fulton's suggestion of building teachers' knowledge and skills in an effort to bring about positive school reform.

Gazing over the bountiful fields of state education reforms and school improvement plans, one is struck, however, by the scarcity of solid evidence concerning the improvement of student performance. The lack of evidence can be attributed partly to the fact that many of the reform efforts are in their infancy; there has not been enough time to measure their success.

Fulton (1996) believed that the following practices should be built into the policy making process to increase the chance that education reforms will lead to improved student performance: (1) a set of criteria that defines success and measures progress; (2) a reliance on objectives and solid information to develop education policies; (3) a comprehensive, long-term plan that focuses on improving teaching and learning; (4) regular and rigorous evaluations

of whether initiatives are achieving their intended goals; and (5) a commitment to "stay the course" with education reform plans.

The surest sign of student achievement is high standardized test results. However, an important preliminary question is how the relationship among teacher salaries, the quality of instruction, and student outcomes play on each other. Student achievement, as a performance objective of many school systems, is generally measured through standardized test scores, although test scores can be manipulated in many ways. The Georgia Association of Educators commented that increases in student achievement test scores are often preferred over administrators' ratings of performance and classroom observations because the measurement is perceived to be more objective. However, their objectivity is illusory when applied to the measurement of a teacher's performance. Achievement tests may not consider all variables. Teachers must work with students whose individual characteristics vary considerably within a class, as well as among several classes on the same grade level. Also, certain key characteristics of students, such as intelligence and home environment, greatly influence the quality and quantity of their academic achievement, regardless of what the teacher does in the classroom.

Characteristics of achievement tests can have a profound effect on what is actually measured, how it is interpreted, and the extent to which student performance reflects teacher effectiveness. Does the test measure what is actually taught in the schools (curricular validity)? Does it measure the content actually taught to the students (instructional validity)? Then there is the question of whether or not the test is reliable. Does it consistently measure what it purports to measure? (Georgia Association of Educators 1991)

The initiative, merit pay, is an incentive-based pay system intended to reward good teaching above and beyond the base salary level. These programs have received mixed evaluations and are quite controversial. An Arizona study found that merit pay increased student achievement, lowered dropout rates, and improved graduation rates. Furthermore, some teachers involved in such programs report they welcome the chance for their skills and expertise to be formally recognized and rewarded. Critics, however, claim there is no agreement on what constitutes good teaching; it is difficult to evaluate a teacher's "merit," the rewards are too small, and the plans create unhealthy competition among teachers and an even greater sense of isolation within schools.

To date, a number of reform efforts are at work to increase student learning. Research-based evidence is just

emerging on many of these efforts, and for education policy to have a greater impact on student achievement, policy-makers need more rigorous, thoughtful processes for making decisions. State leaders and educators need to put together a diverse package of initiatives combining the best of the "old" with the most promising of the "new." Finally, they have to stay on course with the educational reform plans, even if governmental leadership changes.

## Georgia Student Assessments

Various standardized tests are periodically administered in an attempt to measure the success of Georgia students. However, as Johnson (1986, 67) stated, "if the product of schooling is a well-educated student, individual teachers control only a piece of the product." Furthermore, Mary Futrell, former NEA president and Carnegie task force member, concurred that there are no satisfactory methods for measuring student performance and linking this performance with teachers' compensation. According to Futrell, effective teaching and student performance are very much related to class size, fiscal resources, and similar factors beyond the teachers' control (Carnegie Forum, 1986).

In accordance with Georgia legislation passed in 1991, uniform statewide student achievement data are no longer required at every grade. However, in the DeKalb

County School System, a norm-referenced test (NRT) package, the Iowa Tests of Basic Skills (ITBS), is administered to all students in Grades 1-8. The Georgia Department of Education only requires that the NRT be administered to all of the state's third, fifth, and eighth graders. The purpose of the NRT is to obtain information about how the performance of Georgia students compares with that of students in a national sample. NRTs are standardized instruments which measure how well students perform in relation to a particular reference group (same age or grade) on a nationwide basis.

Other tests required by the state include the State Board-designated Curriculum-Based Assessments (CBAs) and the Writing Assessments given at only Grades 3, 5, 8, and 11. These assessments include the evaluation of higher order thinking skills, as well as basic skills and concepts. The CBAs are assessments designed to provide information on the achievement of specific knowledge or skills included in the state-required curriculum. This test compares all the third, fifth, and eighth graders in the state. All children enrolled in Georgia public school kindergarten programs are required to be assessed for first-grade readiness with an instrument or instruments adopted by the State Board of Education.

To comply with state statutes, the Georgia State Board of Education adopted the 1990 Georgia Kindergarten Assessment Program (GKAP) as the designated kindergarten assessment for all Georgia public schools. Georgia law requires that curriculum-based assessments be administered in Grade 11 for graduation purposes. This test is the Georgia High School Graduation Test (GHSGT) and is often referred to as the graduation test.

## School Size/Class Size

According to Futrell (Carnegie Forum 1986), class size is a variable that affects effective teaching and student performance; therefore, it warrants a literature investigation for this study.

The Georgia Department of Education does not regulate or recommend ideal school sizes. The DeKalb County School System does not suggest a preference for a school's populace. Their system's Planning and Facilities Department reports that it only looks at the number of students to plan for future building needs.

On the other hand, the literature revealed that parents do have a preference about school and class size when given the opportunity to choose a school. However, parents' definition of an ideal school and/or system

differs. Preferences regarding indicators such as academic rigor, school system expenditures, school size, and community characteristics vary with each family. According to a USA Today Magazine article (April 1992), a majority of parents (63.4 percent) indicated that small or very small class sizes for elementary school-age youngsters are preferable. By contrast, 58 percent felt that "average" class sizes are suitable for junior and senior high school students. Parents tended to avoid very large or very small school systems. Only 1.4 percent looked for the former, and 0.5 percent prefer that latter.

The general public's perception appears to be married to the notion that students will be more successful in schools with smaller student populations. With this intuitive hunch unvalidated by research, educational leaders find themselves pressured into making decisions to use scarce financial resources to build smaller or additional school buildings rather than focusing on programs, personnel, and initiatives that make significant improvements in teaching and learning. Research on the relationship between size of the school population and student academic performance is inconclusive and fails to establish any clear implications for educators to follow (Berkey 1996). However, a number of researchers studying academic achievement and issues influencing it recognized class size as a process

factor on academic achievement over which schools do exercise control (Caldas and Bankston 1997).

An article by Majorie Coeyman (1990), a staff writer for the Christian Science Monitor, supported small schools. In her article Beth Lief, president of New Visions for Public Schools, a nonprofit organization that has helped to organize thirty small schools in New York City, said that even a school of 1,000 students was "ridiculous"--her idea of a reasonable size: anything below 500. Leif stated that today's educational theory supports hands-on learning over traditional lecture-style classes and "project work." The small student populations "make it so much easier to organize this type of work" (Coeyman 1990, B4).

According to Tom Gregory, professor of education at Indiana University in Bloomington, "You won't find a researcher anywhere in the country who supports big schools. In his mind, even 400 is too large" (Coeyman 1990, B4). Sally Kilgore, director of the Modern Red Schoolhouse Institute in Nashville, Tennessee, a nonprofit group that works to reproduce the virtues of the old-fashioned small school in a modern setting, agreed with Gregory and Lief on small school size, especially in the urban areas. Kilgore believed that smaller schools lessen the discipline problems because there is a feeling of attachment and belonging, and all teachers will know all the students (Coeyman 1990).

Phillip O'Reilly, principal of the 125-student Heath Elementary School in Massachusetts, said, "The small schools have their pros and cons. Small schools have fewer support services" (Coeyman 1990, B4). In some suburbs, efforts to break down large schools have caused parental unhappiness. The parents said, "The community is now less united and there are no more big football teams" (Coeyman 1990, B4). On the plus side, O'Reilly stated, "Every teacher takes ownership of every student that walks through the door" (Coeyman 1990, B4). "Size isn't everything," said Joann Manning, director of field services at the laboratory for school success at Philadelphia's Temple University. "A smaller school doesn't necessarily mean people are teaching in more powerful ways. However, it does organize the school in a way that is useful" (Coeyman 1990, B4).

Each school and school system is different. It is hard to predict what will happen when one attempts to move from the normal to a smaller school, thereby creating smaller class sizes. The research is supportive of smaller class sizes for various reasons. One would certainly hope that it would bring about more individualized instruction. A leader would have to build support for any type of organizational change and hope for long-term gains in student achievement to support it survival.

## Quality of Instruction

Limited research has been conducted in correlating quality of instruction and merit pay. The Georgia Teacher Evaluation Program (GTEP), the Georgia Teacher Observation Instrument (GTOI), and the Georgia Teacher Duties and Responsibilities Instrument (GTDRI) are designed to impact effective instruction.

In the state of Georgia, teacher evaluation is an attempt to monitor teachers and give feedback for the purpose of improving instruction. Teacher evaluation is an integral component in the process of improving teaching and learning. The Georgia Teacher Evaluation Program (GTEP) is designed to serve three purposes: (1) to identify and reinforce effective teaching practices; (2) to identify areas of strengths and weaknesses, allowing for early intervention if a weakness is identified; and (3) to identify teachers who do not meet the minimum standards so that appropriate action can be taken. Appropriate action includes having the administrator and teacher mutually develop a plan to correct observed teaching deficiencies (Georgia Department of Education 1994, 4; Georgia Department of Education 1993, 1).

In the DeKalb County School System, teachers who are new to the school or system are evaluated three times per school year by a building-level administrator and/or a

county-level administrator. Novice teachers are evaluated once each school year, and then three times per year, every two years, or as often as the principal perceives it to be necessary.

The two assessment instruments, the Georgia Teacher Observation Instrument (GTOI) and the Georgia Teacher Duties and Responsibilities Instrument (GTDRI), are constructed to gather the information necessary to accomplish the three purposes of the annual performance evaluation mentioned earlier. It should be noted that the observation instruments (GTEP and GTOI) are designed to assess the basic teaching skills that every teacher should have. This, coupled with a strong intervention model for identified weaknesses, is why approximately 90 percent of all teachers who complete the assessment pass it (Georgia Department of Education 1993, 4). The instruments do not discriminate between "good" and "excellent" teachers. According to a state department spokesperson, to acquire that level of discrimination, it would be necessary to adjust the instrument and provide additional training to evaluators. However, any teacher who fails on the three yearly evaluations (having a total of five needs improvements [NIs] on all evaluations) will be placed on a Professional Development Plan (PDP) to correct deficiencies.

## Summary

Increasingly, policy makers and the public are asking for evidence to show that education reforms and programs actually improve student performance. Many administrators see the improvement of teacher performance as an automatic increase in student achievement. The state of Georgia perceives incentive bonuses as a motivator to schools to improve both administrators' and teachers' performance, bringing about total school-wide improvements and greater student achievement.

Far more time, however, is devoted to implementing reforms than to evaluating them. While anecdotal information and subjective opinions abound, many education initiatives lack solid evidence to show they consistently and positively improve student achievements. The results of this study will give some insight into these issues.

In Chapter III, Theoretical Framework, definitions of variables and the relationship among the variables are presented. The null hypotheses and limitations of the study are also exhibited.

# CHAPTER III

# THEORETICAL FRAMEWORK

The purpose of this study is to investigate the perceptions of principals and teachers regarding the Pay-for-Performance (PfP) Program, as it relates to selected variables, such as parental involvement, teacher motivation, student achievement and quality of instruction in Georgia schools. This researcher also attempts to determine what effects school size and school location may have upon the dependent variables before and during a school's participation in Pay-for-Performance.

## Presentation and Definition of the Variables

The definitions of variables which follow are solely for clarification of this study.

### Independent Variables

1. Principal refers to the chief building administrator of an elementary, middle, or secondary school who manages and controls the daily operations.

2. Teacher refers to certified personnel who work in the classroom; for this study, this term also includes specialists such as guidance counselors, art and music teachers, librarians, etc., who give instruction and/or impart knowledge to students.

3. Pay-for-Performance refers to a school improvement program designed to promote exemplary performance and collaboration at the school level. The program is open to all K-12 public schools in Georgia. Pay-for-Performance awards are made to schools rather than to individuals (Georgia Department of Education 1997, 1).

4. Principal and teacher perception refers to the attitudes and opinions held by school personnel toward Pay-for-Performance with respect to participating in this incentive pay program.

Dependent Variables

5. Parental involvement refers to experiences that are afforded to the students by their parents in both the living (e.g., reads to children at home) and school environments (attends school activities, such as parent conferences) that foster and enhance student success in school.

6. Teacher motivation refers to the exertion of self-effort and persistence demonstrated by teachers in

working toward the accomplishment of the school's objectives, goals, and mission.

7. Student achievement refers to the academic performance of students on comparable standardized tests in the areas of reading comprehension and mathematics, which will be measured by the total on each school's building grade-level profile reports. This will be the national percentile rank (NPR) scores for Grades 3, 5, and 8 before PfP (1995-96) and during PfP (1996-97).

8. Quality of instruction refers to the exertion of persistent efforts by principals and teachers who ensure student mastery of Georgia's educational objectives, goals, and mission.

Moderating Variables

9. School size refers to the student enrollment in a school. The small schools have a population of 100 to 600 students. The large schools have a population of 601 to 1,200 students.

10. School location refers to the metropolitan and nonmetropolitan location (counties) of schools in Georgia. These metropolitan counties are determined by the Atlanta Regional Commission (see appendix A). The ten-county Atlanta metropolitan region includes Cherokee, Clayton, Cobb,

DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry, and Rockdale Counties.

## Relationships Among the Variables

In this section the researcher discusses the relationships between and among the variables of the study. There are two independent variables, the perceptions of principals and teachers relative to Pay-for-Performance. The moderating variables are school size and school location. The dependent or outcome variables are parental involvement, teacher motivation, student achievement, and quality of instruction. The researcher contends that these variables are related and may have some significance for the Pay-for-Performance Program. A diagram of the variables and their relationship is illustrated in fig. 1 (appendix B).

It is critical that principals and teachers have similar perceptions about the school's objectives, goals, mission, and school programs. Without consensus and common perceptions among all stakeholders, the organization is often dysfunctional and ineffective. It is very difficult to implement any type of school reform that enhances student achievement without collegiality, teamwork, and a common vision. When perceptions about a school program, like the Pay-for-Performance, are contradictory, teacher motivation,

student achievement, and quality of instruction may be negatively impacted.

The Pay-for-Performance (PfP) Program is designed to help schools better educate children. In implementing a program of this type, it is essential that the school climate is positive. Often a program of this type enhances the existing school climate. If teachers are not physically and psychologically content within a school, they are less apt to perform at maximum levels. When implementing a PfP Program, it is critical that the stakeholders in a school have good morale and feel good about their jobs and the working environment. Without a positive school climate, the most well-prepared Pay-for-Performance proposal will be difficult to implement successfully.

In schools with a positive school climate, teachers are generally very motivated. Teacher motivation is a necessary quality for Pay-for-Performance implementation. Motivation is the "drive" within a school that keeps it afloat. If teachers are not motivated, they exert minimal efforts, physically and psychologically, toward school reform or other such programs. The school leader (principal) plays a major role in this process. If the principal cannot motivate the staff to participate in Pay-for-Performance or other reform programs, then he or she may also have an ineffective principalship and a minimal impact on student

achievement. The principal should be able to influence and inspire all staff members to become motivated, especially in implementing and achieving a Pay-for-Performance proposal. Student achievement, the ultimate goal, results in part from motivated teachers teaching in a positive school climate.

School size and school location may also have an impact on the implementation of a Pay-for-Performance program. A larger school, generally speaking, will have a more difficult task of gaining consensus among the staff members because of the many varied and diverse needs that exist within the organization. It is often necessary to do extensive team building with large staffs. Communication channels are essential in working with a large staff because finding a meeting time that is convenient for all involved parties is sometimes difficult. The location of a school may also have some implications on the implementation of a proposed Pay-for-Performance plan. Metropolitan and non-metropolitan schools have different needs in some respects. Principals and teachers in these schools, respectively, may have different perceptions about teacher motivation, parental involvement, and the quality of instruction during Pay-for-Performance and its implementation.

Parental involvement is a major component of effective schools. James P. Comer (1988) and others have stressed the importance of cooperation between educators and parents

and parental participation in school decision making. The Pay-for-Performance guidelines specifically state that there must be objectives that focus on building parental support and involvement. Reform programs, like the Pay-for-Performance, attempt to promote parental involvement in children's education. When reform strategies relative to parental involvement are implemented in schools, teachers and principals may be more likely to perceive that parents have ownership in school programs and are partners in learning.

Student achievement is the ultimate objective of any school program. Staff perceptions of Pay-for-Performance, parental involvement, teacher motivation, quality of instruction, school size, and school location may impact student achievement. When these variables work together in a positive manner, students become successful learners and perform well in the academic arena.

## Null Hypotheses

The following null hypotheses were developed for this study.

1. There is no significant relationship between parental involvement before PfP and parental involvement during PfP as perceived by principals.

2. There is no significant relationship between parental involvement before PfP and parental involvement during PfP as perceived by teachers.

3. There is no significant relationship between teacher motivation before PfP and teacher motivation during PfP as perceived by principals.

4. There is no significant relationship between teacher motivation before PfP and teacher motivation during PfP as perceived by teachers.

5. There is no significant relationship between quality of instruction before PfP and quality of instruction during PfP as perceived by principals.

6. There is no significant relationship between quality of instruction before PfP and quality of instruction during PfP as perceived by teachers.

7. There is no significant difference between parental involvement before PfP and parental involvement during PfP as perceived by principals.

8. There is no significant difference between parental involvement before PfP and parental involvement during PfP as perceived by teachers.

9. There is no significant difference between teacher motivation before PfP and teacher motivation during PfP as perceived by principals.

10. There is no significant difference between teacher motivation before PfP and teacher motivation during PfP as perceived by teachers.

11. There is no significant difference between student reading achievement before PfP and student reading achievement during PfP in terms of (a) Grade 3, (b) Grade 5, and (c) Grade 8.

12. There is no significant difference between student math achievement before PfP and student math achievement during PfP in terms of (a) Grade 3, (b) Grade 5, and (c) Grade 8.

13. There is no significant difference between quality of instruction before PfP and quality of instruction during PfP as perceived by principals.

14. There is no significant difference between quality of instruction before PfP and quality of instruction during PfP as perceived by teachers.

15. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and parental involvement in terms of school size.

16. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and parental involvement in terms of school location.

17. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and teacher motivation in terms of school size.

18. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and teacher motivation in terms of school location.

19. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and the quality of instruction in terms of school size.

20. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and the quality of instruction in terms of school location.

## Limitations of the Study

The following limitations should be noted and kept in mind as the findings of the study are reviewed:

1. The sample of participants was limited to elementary and middle schools which achieved Pay-for-Performance during the 1996-97 school year. The population was small; it included twenty-five elementary schools and ten middle schools. The modest size of the sample limits the generalizations of findings to this study.

2. The study was confined to two school types, elementary and middle, in Georgia; therefore, unique

features of the population may limit the generalization of results.

3. Four schools in the study achieved Pay-for-Performance during two consecutive school years (1995-96 and 1996-97). This fact may have had a casual impact on the results of the study.

4. This study was limited to the analysis of perception of selected Georgia public school principals and teachers regarding the effectiveness of Pay-for-Performance upon the performance of students, teachers, and parents.

5. The researcher surveyed all elementary and middle school PfP winners for 1996-97. Only the willing participants (schools) in the population group chose to respond, making this a self-selection process.

## Summary

This research investigation was conducted to determine if there are any significant relationships and/or differences between parental involvement, teacher motivation, student achievement, and quality of instruction in schools before and during participation in Pay-for-Performance, as perceived by principals and teachers. Research data with selected school personnel will indicate if a relationship exists between the perceptions of the dependent variable. These data will also determine if

teachers and principals differ in their perceptions of parental involvement, teacher motivation, and the quality of instruction. This investigation will be moderated by school size and location. The level of interaction of the moderating variables will be measured as significant or not significant.

Chapter IV discusses the methods and procedures that the investigator utilized in this study. The study design, description of the setting, sampling procedures, description of the instrument, and other relative topics are discussed.

# CHAPTER IV

# METHODS AND PROCEDURES

The methods and procedures that were used to conduct this study are described in this chapter. This chapter includes: (1) research design, (2) description of the setting, (3) working with human subjects, (4) description of the instrument, (5) validity and reliability of the instrument, (6) statistical applications, and (8) summary.

## Design of the Study

This study utilized a quantitative design since data were collected via a survey. The researcher used this research design because it allows investigation of relatively large amounts of data and subjects. The data gathered have been analyzed using descriptive statistics and tests of statistical significance. Quantitative research is a design that relies on statistical methods of data analysis to study representative samples or a complete population in order to make broad, well-grounded generalizations (Gall, Borg, and Gall 1996).

This research design has inquiry that is grounded in the assumption that features of the social environment constitute an objective reality that is relatively constant across time and settings. The dominant methodology is to describe and explain features of this reality by collecting numerical data on observable behaviors of samples and by subjecting the data to statistical analysis (Gall, Borg, and Gall 1996).

## Description of the Setting

The population of the study consisted of twenty-five elementary schools and ten middle schools in the state of Georgia. A list of schools which made Pay-for-Performance in the 1996-97 school year was furnished by the Georgia Department of Education. Several school systems of different sizes, in metropolitan and nonmetropolitan areas of Georgia was the setting for the conduction of the study. Each school system has school(s) that have won the Pay-for-Performance incentive award during the 1996-97 school year. All of these Pay-for-Performance schools were included in the target population. Not only are these schools different from a geographic perspective, they also vary in ethnic composition, student enrollment, socioeconomic status, and school configuration. Elementary and middle schools were included in this study. Principals and teachers in the selected

Pay-for-Performance schools had the opportunity to participate in a survey.

## Sampling Procedures

The population group consisted of principals and teachers in the 1996-97 achieving Pay-for-Performance schools. This decision and/or choice is based on the fact that these individuals are in the schools and actually working with the students. Major decisions in the writing of the Pay-for-Performance proposal for incentive pay are made by the principal and the teachers.

The contact person in each school, which was the principal, was asked to distribute the surveys to their teaching staff who were employed at the school during the 1995-97 school years and to complete a survey themselves. The researcher surveyed all elementary and middle school PfP winners for the 1996-97 school year. Only the willing participants (schools) in the population group chose to respond, making this a self-selection process.

## Working with Human Subjects

It was necessary to obtain permission (see appendix C) from some school systems to conduct this study. In DeKalb, Cobb, and Atlanta School Systems the request was made to the Research Specialist. A copy of the proposal

accompanied with a cover letter was submitted to the Georgia Department of Education to secure necessary Iowa Tests of Basic Skills (ITBS) scores for the 1995-96 and 1996-97 school years in reading comprehension and mathematics totals for Grades 3, 5, and 8, and to obtain permission to conduct the study. Telephone conversations were made and postcard mailings were sent to follow up and ensure that the surveys were completed and properly returned.

All participants were afforded discretion and anonymity. A protective measure was taken to ensure that participants felt comfortable while participating in this study. This precaution included providing each participant an envelope in which to seal their survey before returning it completed to the contact person for the group mailing.

## Description of the Instrument

The researcher was unsuccessful in attempts to locate and identify a suitable authenticated instrument that would facilitate the types of questions and responses needed to adequately collect the data needed for this study. The instrument was developed by the researcher after reviewing several survey samples and following suggestions of Gall, Borg and Gall (1996). The variables of this study were: principals' and teachers' perceptions of the PfP program (dependent variables) and teacher motivation, parent

involvement, and the quality of instruction (independent variables). A Likert-type survey (see appendix D) with a discrepancy scale which consisted of 45 statements was administered to the participants in this study. The statements are based on three components in regard to PfP: quality of instruction, teacher motivation, and parent involvement. Items 1-23 on the survey refer to quality of instruction. Items 24-33 pertain to teacher motivation. Items 34-45 make reference to parental involvement. Two cover letters (see appendix E) were developed to explain the survey to the participants (principals and teachers). After the participants completed the surveys, the principal returned them to the researcher in a sealed, self-addressed, stamped envelope.

## Development of the Instrument

In constructing the instrument, some basic steps suggested by Borg and Gall (1996) were used as a guide. Several items were developed on the survey to measure each variable under study, except student achievement. The student achievement was measured using hard data (ITBS test results) that were retrieved from the Georgia Department of Education.

## Validity and Reliability of the Instrument

The survey was read by a panel of readers (educators) chosen from a school not participating in the study to ensure clarity of the survey. These educators came from three DeKalb County schools not included in the study. Each member of the panel evaluated the instrument individually, followed by a collective evaluation. Items on the instrument were modified and/or changed using commentary from the panel. A pilot test was given to a select group for additional feedback. A statistical reliability test was also administered after the data were collected.

## Data Collection Procedures

In order to ensure the efficient collection of data, this researcher obtained addresses of schools which made PfP in 1996-97 from the 1998 Public Education Directory, published by the Georgia Department of Education. The data collection procedures were the same in each school. The permission letter (if applicable), the cover letters, and the surveys were mailed to each respective site, with a return stamped envelope.

After initial contact was made with each school, a follow-up telephone call was made to each school contact person to check on progress and ensure that data were properly returned. Finally, postcards were mailed to remind

the principals to mail back the surveys in a timely manner. The surveys were coded so that the researcher could identify the responses for each school and each respondent and to ensure that data could be properly analyzed.

## Statistical Applications

The Pearson product-moment correlation coefficient (*r*), also known as Pearson *r*, was the technique used to analyze the degree of relationship between two variables. The Pearson *r* is computed when both variables that are desired to be correlated are expressed as continuous scores (Gall, Borg, and Gall 1996). Research Questions 1-6 and associated Null Hypotheses 1-6 were analyzed using the Pearson product-moment correlation.

Research Questions 7-14 and the associated null hypotheses were analyzed using *t* tests. School position (principals or teachers) and school size (small or large) were the factors in an analysis using teacher motivation, paren-tal involvement, and quality of instruction as the dependent variables. The analysis determined first if there was an interaction between the school position and school size: Does perception in the levels of one of the independent variables depend on the levels of the other independent variables? If there was no significant interaction, then main effects were tested to determine if the separate

factors showed significant differences on any of the three dependent variables.

According to Tuckman (1994, 273), "a $t$ test is a statistical test that allows you to compare two means to determine the probability that the difference between the means is a real difference rather than a chance difference." This test was used to reach conclusion in regard to several of the hypotheses in this study.

Research Questions 15-20 and associated null hypotheses were analyzed using a 2x2 analysis of variance (ANOVA); school position and school location and school position and school size were the factors, using the teacher motivation, parental involvement, and quality of instruction as the dependent variables. The same significance testing was conducted to find if there were any interactions or main effects. School achievement was the dependent variable in this analysis, while the other variables became the criterion or independent variables. The moderating variables, school size (as a continuous variable) and school location, were entered into the equation first. After the amount of variance of these moderating variables was assessed, then the other variables (teachers' and principals' perceptions of teacher motivation, parental involvement, and quality of instruction) were entered in a stepwise procedure to be

evaluated for what each adds to the prediction over and above the set of moderating variables.

Analysis of variance (ANOVA) is the statistical technique that was used to analyze the data from the surveys. The significance level was set at .05 to interpret the data and significant findings. The data were entered into a computer for a computer analysis after being collected and coded. The school location variable indicates whether or not the school was located in one of the ten metropolitan counties as determined by the Atlanta Regional Commission (see appendix A). Schools so located within the region were coded 1, and those not in the metropolitan region were coded 2. The principals were coded 3, and the teachers were coded 4 for data entry.

ANOVA was the statistical tool used to measure variance between and among the variables. The ANOVA is a procedure for determining whether the difference between the mean scores of two or more groups on a dependent variable is statistically significant (Gall, Borg, and Gall 1996).

Measurement of the variable of student achievement occurred via an analysis of the building level Iowa Tests of Basic Skills (ITBS) data. The ITBS reading comprehension and mathematics total scores of Grades 3 and 5 in elementary schools and Grade 8 for middle schools for the 1995-96 and 1996-97 school years were analyzed.

## Summary

A quantitative approach was used in this study. All Pay-for-Performance elementary and middle schools in Georgia which won the 1996-97 incentive comprised the target population. In Chapter V the data are analyzed and the tables relative to this study are presented and discussed.

# CHAPTER V

# ANALYSIS OF THE DATA

## Introduction

The purpose of this study was to examine the perceptions of principals and teachers pertaining to the effectiveness of the Pay-for-Performance (PfP) Program in the state of Georgia as it relates to parental involvement, teacher motivation, student achievement, and the quality of instruction. This chapter provides an analysis of the data generated by the survey and the statistical measures (Statistical Package for the Social Sciences [SPSS]) used to test the hypotheses. Furthermore, this study proposed to determine if there was a difference or a relationship between the perceptions of principals and teachers in regard to the selected variables.

During the 1996-97 school year (July 1, 1996, through June 30, 1997), 25 elementary schools and 10 middle schools in the state of Georgia won Pay-for-Performance (PfP) awards (see appendix F). These 35 schools formed the sample for the study. This researcher investigated the status of parental involvement, teacher motivation, student achievement, and quality of instruction for the 1995-96

(July 1, 1995, through June 30, 1996) school year to determine if these dependent variables increased, decreased, or remained the same during the PfP school year (1996-97), as perceived by principals and teachers.

Surveys were used to gather data for this study, and the computer programs of the Statistical Package for the Social Sciences (SPSS) were used to analyze the data. A total of 21 principals and 140 teachers from 13 elementary schools and 3 middle schools representing the population responded to the survey. The number of principals and teachers of eighth graders is a very small number on which to perform statistical analyses. Therefore, not much credence can be given to this outcome.

The independent variables were examined to determine if a relationship or difference existed between and among the variables that were studied. The independent variables were principals' and teachers' perceptions of PfP. The dependent variables were parental involvement, teacher motivation, quality of instruction, and student achievement. Two moderating variables, school size and school location, were analyzed to determine their impact upon the dependent variables. An analysis of each variable was performed separately based on the null hypotheses. Pearson product-moment (Pearson $r$) correlations were used in analyzing the data to indicate relationship. Analysis of variance (ANOVA)

was applied to indicate differences. The level of significance was set at .05.

Table 2 lists the schools and the number of respondents from each. There are as few as four respondents in several of the schools. Although this researcher desired more than four respondents per school, the selection process was voluntarily completed. A total of 161 completed questionnaires were received from 16 schools.

TABLE 2

NUMBER AND PERCENTAGE OF RESPONDENTS PER SCHOOL ($n$ = 161)

| School Number | Teachers | Principals | Total | Percent |
|---|---|---|---|---|
| 1 | 6 | 1 | 7 | 4.3 |
| 2 | 12 | 2 | 14 | 8.7 |
| 3 | 8 | 3 | 11 | 6.8 |
| 4 | 6 | 1 | 7 | 4.3 |
| 5 | 12 | 1 | 13 | 8.1 |
| 6 | 10 | 0 | 10 | 6.2 |
| 7 | 12 | 1 | 13 | 8.1 |
| 8 | 12 | 1 | 13 | 8.1 |
| 9 | 5 | 1 | 6 | 3.7 |
| 10 | 3 | 1 | 4 | 2.5 |
| 11 | 1 | 3 | 4 | 2.5 |
| 12 | 2 | 2 | 4 | 2.5 |
| 13 | 6 | 3 | 9 | 5.6 |
| 14 | 15 | 0 | 15 | 9.3 |
| 15 | 6 | 0 | 6 | 3.7 |
| 16 | 22 | 3 | 25 | 15.5 |
| Total | 138 | 23 | 161 | 100.0 |

Table 3 shows that more teachers responded to the survey than principals, which was anticipated by the

TABLE 3

SCHOOL LOCATION: RESPONDENTS FROM METROPOLITAN AND NONMETROPOLITAN SCHOOLS (n = 161)

| School Location | Position | n | % of Grand Total |
|---|---|---|---|
| Metropolitan | Principal | 15 | 9 |
| | Teacher | 72 | 45 |
| | Total | 87 | 54 |
| Nonmetropolitan | Principal | 6 | 4 |
| | Teacher | 68 | 42 |
| | Total | 74 | 46 |
| Grand Total | | 161 | 100 |

researcher. Also, more responses were received from metropolitan areas than from nonmetropolitan areas.

Table 4 reveals that in 1995-96 more than half (55 percent) of the respondents came from small schools.

TABLE 4

SCHOOL SIZE: RESPONDENTS FROM LARGE AND SMALL SCHOOLS, 1995-96, BEFORE PfP (n = 161)

| School Size | Position | n | % of Grand Total |
|---|---|---|---|
| Small (to 600 enrollment) | Principal | 8 | 5 |
| | Teacher | 80 | 50 |
| | Total | 88 | 55 |
| Large (> 600 enrollment) | Principal | 13 | 8 |
| | Teacher | 60 | 37 |
| | Total | 73 | 45 |
| Grand Total | | 161 | 100 |

Table 5 indicates that some of the schools lost enrollment over the course of the PfP year. In 1996-97, only 37 percent of the respondents were in a large school (more than 600 students).

TABLE 5

SCHOOL SIZE: RESPONDENTS FROM LARGE AND SMALL SCHOOLS, 1996-97, DURING PfP (n = 161)

| School Size | Position | n | % of Grand Total |
|---|---|---|---|
| Small (to 600 enrollment) | Principal | 9 | 5 |
| | Teacher | 93 | 58 |
| | Total | 102 | 63 |
| Large (> 600 enrollment) | Principal | 12 | 8 |
| | Teacher | 47 | 29 |
| | Total | 59 | 37 |
| Grand Total | | 161 | 100 |

## Null Hypotheses and Analysis of Data

To quantify the results of the questionnaire survey, the numerical values of 4, 3, 2, and 1 were assigned to 45 items. It was a discrepancy instrument that surveyed the respondents before PfP and during PfP on the measured variables. Items 1-23 on the questionnaire reported data on the quality of instruction variable, Items 24-34 gathered information on teacher motivation, and Items 35-45 solicited data on parental involvement.

Respondents were asked to answer each item on a four-point Likert scale. The responses to the instrument

were: 4 = Strongly Agree, 3 = Agree, 2 = Disagree, and 1 = Strongly Disagree. Two Likert scales were offered for each question, one for Before PfP (1995-96) and one for During PfP (1996-97). The data from those responses were used to test the hypotheses.

This chapter examines and analyzes data related to the twenty hypotheses outlined in Chapter III. The findings of the data analysis are presented in tabular format along with accompanying narratives. The hypotheses were reviewed and accepted or rejected based on the accompanying data.

For the purpose of this study, twenty null hypotheses were tested. Null Hypotheses 1-6 were tested using Pearson r correlation to test for relationship. Null Hypotheses 7-14 were analyzed using the t test to test for difference. Null Hypotheses 15-20 used analysis of variance (ANOVA) to measure difference. The data for the Pay-for-Performance instrument were tabulated, and the findings are presented in tables and explained through accompanying narratives in the following paragraphs.

Hypothesis 1. There is no significant relationship between parental involvement before PfP and parental involvement during PfP as perceived by principals.

The data with respect to this hypothesis are shown in table 6. A correlational analysis was used to establish significance for Hypothesis 1. In the table, the mean score for parental involvement before PfP (1995-96) was 2.70,

TABLE 6

RESULTS OF CORRELATION OF PRINCIPALS' PERCEPTIONS OF PARENTAL INVOLVEMENT BEFORE AND DURING THE PAY-FOR-PERFORMANCE PROGRAM ($n$ = 20)

| Variable | $n$ | Mean | Standard Deviation | $r$ | Signif. of $r$ |
|---|---|---|---|---|---|
| Parental Involvement Before PfP | 20 | 2.70 | 0.74 | | |
| | | | | .89 | .000* |
| Parental Involvement During PfP | 20 | 2.89 | 0.74 | | |

*Significant at or beyond the .05 level.

Note: Critical $r$ = .433.

compared to a parental involvement during PfP (1996-97) of 2.89. The correlation between parental involvement before PfP and parental involvement during PfP, as perceived by principals, was .89. The findings showed that, based on the principals' perceptions, there was a significant relationship between the level of parental involvement before and during PfP. Null Hypothesis 1 was thus rejected.

On the surface, those two means only had a 0.19 difference in mean scores, which was a slight margin. However, the correlation for that significant relationship yielded results beyond the .05 level. The data indicated that the principals felt parental involvement to be higher during PfP.

Hypothesis 2. There is no significant relationship between parental involvement before PfP and parental involvement during PfP as perceived by teachers.

The analysis of the data with respect to Null Hypothesis 2 is shown in table 7. According to the teachers' perception, the mean score for the parental involvement before PfP (1995-96) was 2.59, compared to a parental involvement during PfP (1996-97) of 2.82. The correlation between parental involvement before and during PfP was .71.

The findings showed that there was a significant relationship between the level of parental involvement before and during PfP. Therefore, Null Hypothesis 2 was rejected.

TABLE 7

RESULTS OF CORRELATION OF TEACHERS' PERCEPTIONS OF PARENTAL INVOLVEMENT BEFORE AND DURING THE PAY-FOR-PERFORMANCE PROGRAM (n = 137)

| Variable | n | Mean | Standard Deviation | r | Signif. of r |
|---|---|---|---|---|---|
| Parental Involvement Before PfP | 137 | 2.59 | 0.71 | | |
| | | | | .71 | .000* |
| Parental Involvement During PfP | 137 | 2.82 | 0.51 | | |

*Significant at or beyond the .05 level.

Note: Critical r = .195.

The parental involvement during PfP had a significantly higher rating than the parental involvement before PfP, from the teachers' perceptions. From the statistical testing, those facts indicated that the PfP program contributed to increased parental involvement.

Hypothesis 3. There is no significant relationship between teacher motivation before PfP and teacher motivation during PfP as perceived by principals.

The data with respect to this hypothesis are shown in table 8. In this table, the perception of the principals revealed a mean score of 2.94 for the teacher motivation before PfP and a mean score of 3.11 for the teacher motivation during PfP. The correlation was .57.

TABLE 8

RESULTS OF CORRELATION OF PRINCIPALS' PERCEPTIONS OF TEACHER MOTIVATION BEFORE AND DURING THE PAY-FOR-PERFORMANCE PROGRAM ($n$ = 21)

| Variable | $n$ | Mean | Standard Deviation | $r$ | Signif. of $r$ |
|---|---|---|---|---|---|
| Teacher Motivation Before PfP | 21 | 2.94 | 0.55 | | |
| | | | | .57 | .007* |
| Teacher Motivation During PfP | 21 | 3.11 | 0.56 | | |

*Significant at or beyond the .05 level.

Note: Critical $r$ = .433.

The findings showed that, based on the principals' perceptions, there was a significant relationship between teacher motivation before PfP and during PfP; hence, Null Hypothesis 3 was rejected.

The principals rated teacher motivation during PfP higher than before PfP. Data and statistical testing indicated that PfP stimulated higher teacher motivation.

Hypothesis 4. There is no significant relationship between teacher motivation before PfP and teacher motivation during PfP as perceived by teachers.

The mean teacher motivation before PfP was 3.48, which was greater than a mean motivation during PfP of 3.20. The results indicated a significant relation (.48) beyond the .05 level. It appeared to the teachers participating in this study that teacher motivation was greater during PfP than before PfP. Thus, data indicated that the teachers' perceptions for both school years showed a positive significant relationship.

The results in table 9 show a significant relationship between teacher motivation before PfP and teacher motivation during PfP. The findings indicated that there was a significant relationship between the two. Null Hypothesis 4 was rejected.

At a glance, it would appear that there was not a significant relationship between the two years, since there

TABLE 9

RESULTS OF CORRELATION OF TEACHERS' PERCEPTIONS OF TEACHER MOTIVATION BEFORE AND DURING THE PAY-FOR-PERFORMANCE PROGRAM (n = 137)

| Variable | n | Mean | Standard Deviation | r | Signif. of r |
|---|---|---|---|---|---|
| Teacher Motivation Before PfP | 137 | 3.20 | 0.63 | | |
| | | | | .48 | .000* |
| Teacher Motivation During PfP | 137 | 3.48 | 0.57 | | |

*Significant at or beyond the .05 level.

Note: Critical r = .195.

was only 0.28 difference between the mean scores. The results of the correlations indicated that PfP increased teacher motivation, as perceived by the teachers.

Hypothesis 5. There is no significant relationship between quality of instruction before PfP and quality of instruction during PfP as perceived by principals.

The data with respect to Null Hypothesis 5 are shown in table 10. The mean score for quality of instruction was 2.96, and the mean score for quality of instruction during PfP was 3.42. The calculated difference between quality of instruction before and during PfP, as perceived by principals, was .67, a significant relationship at the .05 level. The data in this study revealed a significant relationship

TABLE 10

RESULTS OF CORRELATION OF PRINCIPALS' PERCEPTIONS OF QUALITY OF INSTRUCTION BEFORE AND DURING THE PAY-FOR-PERFORMANCE PROGRAM (n = 21)

| Variable | n | Mean | Standard Deviation | r | Signif. of r |
|---|---|---|---|---|---|
| Quality of Instruction Before PfP | 21 | 2.96 | 0.47 | | |
| | | | | .67 | .001* |
| Quality of Instruction During PfP | 21 | 3.42 | 0.36 | | |

*Significant at or beyond the .05 level.

Note: Critical r = .433.

between quality of instruction before and during PfP, as perceived by the principals. Therefore, Null Hypothesis 5 was rejected.

According to the principals, the mean rating scores of both years indicated that the quality of instruction was greater during PfP than before PfP. The significance of r showed that the chance of that phenomenon occurring was highly significant at the .001 level.

Hypothesis 6. There is no significant relationship between quality of instruction before PfP and quality of instruction during PfP as perceived by teachers.

The data with respect to Hypothesis 6 revealed that the mean for quality of instruction before PfP was 3.13 and

that the mean for quality of instruction during PfP was 3.46 (see table 11). A total of 139 teachers responded to the before PfP survey items, and 138 responded to the during PfP items. The correlation between the quality of instruction before PfP and during PfP was .62, which was significant at the .05 level.

TABLE 11

RESULTS OF CORRELATION OF TEACHERS' PERCEPTIONS OF QUALITY OF INSTRUCTION BEFORE AND DURING THE PAY-FOR-PERFORMANCE PROGRAM (*n* = 138)

| Variable | *n* | Mean | Standard Deviation | *r* | Signif. of *r* |
|---|---|---|---|---|---|
| Quality of Instruction Before PfP | 138 | 3.13 | 0.44 | | |
| | | | | .62 | .000* |
| Quality of Instruction During PfP | 138 | 3.46 | 0.42 | | |

*Significant at or beyond the .05 level.

Note: Critical *r* = .195.

The statistical findings relating to the teachers' perceptions of the quality of instruction indicated that there was a significant relationship between the quality of instruction before and during PfP. Thus, Null Hypothesis 6 was rejected.

The data related to Hypothesis 6 indicated that increased quality of instruction was obtained during a school's participation in PfP, as perceived by the principals.

Hypothesis 7. There is no significant difference between parental involvement before PfP and parental involvement during PfP as perceived by principals.

The data with respect to this hypothesis are shown in table 12. The mean score for parental involvement before PfP was 2.70, and the mean score for parental involvement during PfP was 2.89. The calculated *t* value between the two scores is -2.48, which was significant beyond the .05 level.

TABLE 12

RESULTS OF THE PAIRED SAMPLES *t* TEST OF PRINCIPALS' PERCEPTIONS OF PARENTAL INVOLVEMENT BEFORE AND DURING THE PAY-FOR-PERFORMANCE PROGRAM (*n* = 20)

| Variable | *n* | Mean | Standard Deviation | *r* | Signif. of *r* |
|---|---|---|---|---|---|
| Parental Involvement Before PfP | 20 | 2.70 | 0.74 | | |
| | | | | -2.48 | .02* |
| Parental Involvement During PfP | 20 | 2.89 | 0.74 | | |

*Significant at or beyond the .05 level.

The findings showed that, based on the principals' perceptions, there was a significant increase in parental involvement during PfP. The principals felt that there was greater parental involvement in the schools during PfP than before PfP. Therefore, Null Hypothesis 7 was rejected.

Hypothesis 8. There is no significant difference between parental involvement before PfP and parental involvement during PfP as perceived by teachers.

The data with respect to this hypothesis are shown in table 13. The mean score for parental involvement before PfP was 2.60, and the mean score for parental involvement during PfP was 2.82. The calculated *t* value between the two scores was -5.10, which was significant beyond the .05 level.

TABLE 13

RESULTS OF THE PAIRED SAMPLES *t* TEST OF TEACHERS' PERCEPTIONS OF PARENTAL INVOLVEMENT BEFORE AND DURING THE PAY-FOR-PERFORMANCE PROGRAM (*n* = 137)

| Variable | *n* | Mean | Standard Deviation | *t* | Signif. of *t* |
|---|---|---|---|---|---|
| Parental Involvement Before PfP | 137 | 2.60 | 0.71 | | |
| | | | | -5.10 | < .01* |
| Parental Involvement During PfP | 137 | 2.82 | 0.61 | | |

*Significant at or beyond the .05 level.

The findings showed that, based on the teachers' perceptions, there was an increase in parental involvement during PfP. The teacher respondents of this survey detected that parental involvement was greater during PfP than before PfP. Therefore, Null Hypothesis 8 was rejected.

Hypothesis 9. There is no significant difference between teacher motivation before PfP and teacher motivation during PfP as perceived by principals.

The data with respect to this hypothesis are shown in table 14. The mean score for teacher motivation before PfP was 2.94, and the mean score for the teacher motivation during PfP was 3.11. The calculated *t* value between the two was -1.47, which was not significant at the .05 level.

TABLE 14

RESULTS OF THE PAIRED SAMPLES *t* TEST OF PRINCIPALS' PERCEPTIONS OF TEACHER MOTIVATION BEFORE AND DURING THE PAY-FOR-PERFORMANCE PROGRAM (*n* = 21)

| Variable | *n* | Mean | Standard Deviation | *t* | Signif. of *t* |
|---|---|---|---|---|---|
| Teacher Motivation Before PfP | 21 | 2.94 | 0.55 | | |
| | | | | -1.47 | .16 |
| Teacher Motivation During PfP | 21 | 2.82 | 0.61 | | |

The findings showed that, based on the principals' perceptions, there was no significant difference in teacher motivation before PfP and teacher motivation during PfP. Therefore, Null Hypothesis 9 was accepted.

Hypothesis 10. There is no significant difference between teacher motivation before PfP and teacher motivation during PfP as perceived by teachers.

The data with respect to this hypothesis are shown in table 15. The mean score for teacher motivation before PfP was 3.21, and the mean score for teacher motivation during PfP was 3.48. The calculated *t* value between the two was -5.16, which was significant beyond the .05 level.

TABLE 15

RESULTS OF THE PAIRED SAMPLES *t* TEST OF TEACHERS' PERCEPTIONS OF TEACHER MOTIVATION BEFORE AND DURING THE PAY-FOR-PERFORMANCE PROGRAM (*n* = 137)

| Variable | *n* | Mean | Standard Deviation | *t* | Signif. of *t* |
|---|---|---|---|---|---|
| Teacher Motivation Before PfP | 137 | 3.21 | 0.63 | | |
| | | | | -5.16 | < .01* |
| Teacher Motivation During PfP | 137 | 3.48 | 0.57 | | |

*Significant at or beyond the .05 level.

The findings showed that, based on the teachers' perceptions, there was a significant increase from teacher motivation before PfP to teacher motivation during PfP. Therefore, Null Hypothesis 10 was rejected.

Hypothesis 11. There is no significant difference between student reading achievement before PfP and student reading achievement during PfP in terms of (a) Grade 3, (b) Grade 5, and (c) Grade 8.

Student achievement data for ITBS reading and math were retrieved from the Georgia Department of Education database for each school by grade level. The data with respect to reading scores are shown in table 16.

The mean score for third grade reading before PfP was 46.2 and third grade reading during PfP was 47.5. The calculated *t* value between the two scores was -0.50, which was not significant at or beyond the .05 level. The findings showed that there was no difference between the student achievement in reading before PfP and during PfP for the third grade. Therefore, Null Hypothesis 11a was accepted.

As shown in table 16, the mean score for fifth grade reading before PfP was 50.0 and fifth grade reading during PfP was 49.3. The calculated *t* value was 0.78, which was not significant at the .05 level. The findings of the *t* test showed that there was no difference between the student reading achievement before and during PfP for fifth graders. Therefore, Null Hypothesis 11b was accepted.

TABLE 16

RESULTS OF THE PAIRED SAMPLES *t* TEST FOR THIRD, FIFTH, AND EIGHTH GRADE ITBS READING COMPREHENSION ACHIEVEMENT SCORES FOR 1995-96 (BEFORE PfP) AND 1996-97 (DURING PfP) (*n* = 16)

| Variable | *n* | Mean | *SD* | *t* | *p* |
|---|---|---|---|---|---|
| 3rd Grade Reading Before PfP | 13 | 46.2 | 13.8 | -0.50 | .63 |
| 3rd Grade Reading During PfP | 13 | 47.5 | 13.2 | | |
| 5th Grade Reading Before PfP | 13 | 50.0 | 9.9 | 0.29 | .78 |
| 5th Grade Reading During PfP | 13 | 49.3 | 9.6 | | |
| 8th Grade Reading Before PfP | 3 | 52.0 | 4.9 | -0.61 | .60 |
| 8th Grade Reading During PfP | 3 | 53.3 | 2.5 | | |

The data with respect to the eighth grade reading scores are shown in table 16. The mean score for eighth grade reading before PfP was 52.0 and the mean score for eighth grade reading during PfP was 53.3. The calculated *t* value between the two scores is -0.61, which was not significant at the .05 level. The findings showed that there was no difference between the student reading achievement before and during PfP for eighth graders. Therefore, Null Hypothesis 11c was accepted.

Hypothesis 12. There is no significant difference between student math achievement before PfP and student math achievement during PfP in terms of (a) Grade 3, (b) Grade 5, and (c) Grade 8.

Data for the ITBS math student achievement before PfP and during PfP were retrieved from the Georgia Department of Education database for each school by grade level. The data with respect to math scores are presented in table 17.

TABLE 17

RESULTS OF THE PAIRED SAMPLES *t* TEST FOR THIRD, FIFTH, AND EIGHTH GRADE ITBS MATH ACHIEVEMENT SCORES FOR 1995-96 (BEFORE PfP) AND 1996-97 (DURING PfP) (*n* = 16)

| Variable | *n* | Mean | *SD* | *t* | *p* |
|---|---|---|---|---|---|
| 3rd Grade Math Before PfP | 13 | 50.5 | 13.3 | -2.18 | .05* |
| 3rd Grade Math During PfP | 13 | 57.2 | 9.8 | | |
| 5th Grade Math Before PfP | 13 | 51.8 | 9.4 | -0.21 | .84 |
| 5th Grade Math During PfP | 13 | 53.3 | 16.5 | | |
| 8th Grade Math Before PfP | 3 | 58.3 | 2.5 | 0.00 | 1.00 |
| 8th Grade Math During PfP | 3 | 58.3 | 6.0 | | |

*Significant at or beyond the .05 level.

The data with respect to third grade math scores are shown in table 17. The mean score for third grade math before PfP was 50.5 and the mean score for third grade math during PfP was 57.2. The calculated *t* value between the two scores was -2.18, which was significant at the .05 level. The findings showed that there was a significant difference between student math achievement before and during PfP for third graders. Therefore, Null Hypothesis 12a was rejected.

As shown in table 17, the mean score for fifth grade math before PfP was 51.8 and fifth grade math during PfP was 53.3. The calculated *t* value was -0.21 with a *p* value of .84, which was not significant at the .05 level. The findings of the *t* test showed that there was no difference between student math achievement before and during PfP for fifth graders. Therefore, Null Hypothesis 12b was rejected.

As shown in table 17, the mean score for eighth grade math before PfP is 58.3 and eighth grade math during PfP was 58.3. The calculated *t* value was 0.00 with a *p* value of 1.00, which was not significant at the .05 level. The findings of the *t* test showed that there was no difference between student math achievement before and during PfP for eighth graders. Therefore, Null Hypothesis 12c was rejected.

Hypothesis 13. There is no significant difference between quality of instruction before PfP and quality of instruction during PfP as perceived by principals.

The data with respect to this hypothesis are shown in table 18. The mean score for quality of instruction before PfP was 2.96, and the mean score for quality of instruction during PfP was 3.42. The calculated *t* value between the two was -5.96, which was significant beyond the .05 level.

TABLE 18

RESULTS OF THE PAIRED SAMPLES *t* TEST FOR PRINCIPALS' PERCEPTIONS OF THE QUALITY OF INSTRUCTION BEFORE PfP AND DURING PfP (*n* = 21)

| Variable | *n* | Mean | *SD* | *t* | *p* |
|---|---|---|---|---|---|
| Quality of Instruction Before PfP | 21 | 2.96 | 0.47 | | |
| Quality of Instruction During PfP | 21 | 3.42 | 0.36 | -5.96 | <.01* |

*Significant at or beyond the .05 level.

The findings showed that, based on the principals' perceptions, there was a significant increase in the quality of instruction from before PfP to during PfP. The quality of instruction differed in a positive direction during PfP, as indicated by the principals who responded to this survey. Therefore, Null Hypothesis 13 was rejected.

Hypothesis 14. There is no significant difference between quality of instruction before PfP and quality of instruction during PfP as perceived by teachers.

The data with respect to this hypothesis are shown in table 19. The mean score for quality of instruction before PfP was 3.13, and the mean score for quality of instruction during PfP was 3.46. The calculated t value between the two was -10.24, which was significant beyond the .05 level.

TABLE 19

RESULTS OF THE PAIRED SAMPLES t TEST FOR TEACHERS' PERCEPTIONS OF THE QUALITY OF INSTRUCTION BEFORE PfP AND DURING PfP (n = 138)

| Variable | n | Mean | SD | t | p |
|---|---|---|---|---|---|
| Quality of Instruction Before PfP | 138 | 3.13 | 0.44 | | |
| Quality of Instruction During PfP | 138 | 3.46 | 0.43 | -10.24 | <.01* |

*Significant at or beyond the .05 level.

The findings showed that, based on the teachers' perceptions, there was a significant increase in the quality of instruction from before PfP to during PfP. Therefore, Null Hypothesis 14 was rejected.

Hypothesis 15. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and parental involvement in terms of school size.

Tables 20 and 21 provide a summary of the analysis of Hypothesis 15. The responses from the principals and teachers were analyzed in a 2x2 ANOVA to determine if their perceptions of parental involvement differed according to the size of their schools. There were no significant interactions between position (teachers and principals) and size of school, indicating that there was no difference in perception of parental involvement between principals and teachers according to the size of their school. There was no significant main effect of position, indicating that there was no difference between teachers and principals on their perceptions of parental involvement. There was a significant main effect of school size, indicating that teachers and principals in small schools (mean = 2.95) perceived higher parental involvement than principals and teachers in large schools (mean = 2.63).

The two-way ANOVA test produced an $F$ of 2.275 with a significance of .134, which was not significant at the .05 level. There was no interaction between position and school size in regard to parental involvement. Therefore, Null Hypothesis 15 was accepted.

TABLE 20

DISTRIBUTION OF MEANS FOR PARENTAL INVOLVEMENT FOR PRINCIPALS AND TEACHERS IN LARGE AND SMALL SCHOOL SIZES (n = 157)

| | Small Schools | | Large Schools | | Total | |
|---|---|---|---|---|---|---|
| Group | n | Mean | n | Mean | n | Mean |
| Principals | 9 | 3.29 | 11 | 2.57 | 20 | 2.89 |
| Teachers | 91 | 2.92 | 46 | 2.64 | 137 | 2.82 |
| Total | 100 | 2.95 | 57 | 2.63 | 157 | 2.83 |

TABLE 21

ANALYSIS OF VARIANCE FOR DIFFERENCES BETWEEN POSITION AND SCHOOL SIZE ON PARENTAL INVOLVEMENT SCORES

| Source | Sum of Squares | df | Mean Square | F | Signif. of F |
|---|---|---|---|---|---|
| Between | | | | | |
| Position | 0.081 | 1 | 0.081 | 0.221 | .639 |
| School Size | 4.074 | 1 | 4.074 | 11.154 | .001* |
| 2-Way Interaction Position x School Size | 0.831 | 1 | 0.831 | 2.275 | .134 |
| Residual | 55.889 | 153 | 0.365 | | |
| Total | 60.875 | 156 | 0.390 | | |

*Significant at or beyond the .05 level.

Hypothesis 16. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and parental involvement in terms of school location.

The survey responses were analyzed according to the school location of the principals and teachers utilizing a two-way analysis of variance (ANOVA). The 2x2 ANOVA was computed to indicate if a significant difference existed between the principals' and teachers' perceptions of parental involvement in terms of school location. Tables 22 and 23 reveal the results of this analysis. There was no significant interaction at the .05 level between positions (teachers or principals) and location of school (metropolitan or nonmetropolitan), indicating that there was no difference in perception of parental involvement between principals and teachers according to the location of schools. There were also no significant main effects of position or location, indicating no differences between principals and teachers and no differences between metro and nonmetro schools. Because the ANOVA revealed that there was no difference based on location or position, Null Hypothesis 16 was accepted.

The two-way ANOVA test produced an *F* ratio of 0.839 with a significance of .361, which was not significant at the .05 level. These results revealed no interaction between the positions and locations. Like the principals and

TABLE 22

DISTRIBUTION OF MEANS FOR PARENTAL INVOLVEMENT FOR PRINCIPALS AND TEACHERS IN METRO AND NONMETRO LOCATIONS (*n* = 157)

| | Metro | | Nonmetro | | Total | |
|---|---|---|---|---|---|---|
| Group | *n* | Mean | *n* | Mean | *n* | Mean |
| Principals | 14 | 2.77 | 6 | 3.17 | 20 | 2.89 |
| Teachers | 71 | 2.78 | 66 | 2.87 | 137 | 2.82 |
| Total | 85 | 2.78 | 72 | 2.90 | 157 | 2.82 |

TABLE 23

ANALYSIS OF VARIANCE FOR DIFFERENCES BETWEEN POSITION AND LOCATION ON PARENTAL INVOLVEMENT SCORES

| Source | Sum of Squares | *df* | Mean Square | *F* | Signif. of *F* |
|---|---|---|---|---|---|
| Between | | | | | |
| Position | 0.081 | 1 | 0.081 | 0.207 | .650 |
| Location | 0.640 | 1 | 0.640 | 1.638 | .203 |
| 2-Way Interaction Position x Location | 0.328 | 1 | 0.328 | 0.839 | .361 |
| Residual | 59.826 | 153 | 0.391 | | |
| Total | 60.875 | 156 | 0.390 | | |

teachers from small schools, the principals and teachers from the large schools felt the same about the effects of PfP on parental involvement.

Hypothesis 17. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and teacher motivation in terms of school size.

Hypothesis 17 was assessed utilizing the ANOVA to indicate if a significant difference existed between the principals' and teachers' perceptions of teacher motivation according to the size of the school. The results are displayed in Tables 24 and 25.

The two-way ANOVA produced an F ratio of 0.051 with a significance of .822, which was not significant at the .05 level. There was no interaction but significant main effects for position and school size. There was a significant difference between small schools and large schools in the principals' and teachers' perceptions of teacher motivation. The principals and teachers in the small schools had a mean score of 3.53, versus the principals and teachers in the large schools with a mean score of 3.25.

Teacher motivation was higher in the small schools, according to the teachers and principals who responded to this survey. Additionally, the teachers had a mean score of 3.48 on teacher motivation, and the principals had a mean score of 3.11. This indicates that the teachers in both the small and large schools felt that teacher motivation was

TABLE 24

DISTRIBUTION OF MEANS FOR TEACHER MOTIVATION FOR PRINCIPALS AND TEACHERS IN LARGE AND SMALL SCHOOL SIZES (n = 158)

| | Small Schools | | Large Schools | | Total | |
|---|---|---|---|---|---|---|
| Group | n | Mean | n | Mean | n | Mean |
| Principals | 9 | 3.28 | 12 | 2.98 | 21 | 3.11 |
| Teachers | 91 | 3.56 | 46 | 3.32 | 137 | 3.48 |
| Total | 100 | 3.53 | 58 | 3.25 | 158 | 3.43 |

TABLE 25

ANALYSIS OF VARIANCE FOR DIFFERENCES BETWEEN POSITION AND SCHOOL SIZE ON TEACHER MOTIVATION SCORES

| Source | Sum of Squares | df | Mean Square | F | Signif. of F |
|---|---|---|---|---|---|
| Between | | | | | |
| Position | 2.49 | 1 | 2.49 | 7.10 | .005* |
| School Size | 2.10 | 1 | 2.11 | 6.76 | .010* |
| 2-Way Interaction Position x School Size | 0.016 | 1 | 0.016 | 0.051 | .822 |
| Residual | 48.017 | 154 | 0.312 | | |
| Total | 52.634 | 157 | 0.335 | | |

*Significant at or beyond the .05 level.

higher than the principals in those same schools. Therefore, Null Hypothesis 17 was rejected.

Hypothesis 18. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and teacher motivation in terms of school location.

Hypothesis 18 was also tested using the 2x2 ANOVA statistical test, and the results are summarized in tables 26 and 27. There was no significant interaction (.611) between position and school location. There was no significant main effect of location, indicating that there was no difference between metro and nonmetro schools in their perceptions of teacher motivation. The position perceptions (teachers and principals) were significantly different in regard to teacher motivation (a significant main effect of position). The principals in both areas (metro and nonmetro) averaged a 3.11 mean score, while the teachers in both locations had an average mean score of 3.48. The mean scores revealed that the teachers again felt that teacher motivation was higher than the principals felt teacher motivation to be in those same schools.

The two-way ANOVA test produced an $F$ of 0.259 with a significance of .611, which was not significant at the .05 level. There was no interaction between position and location in regard to teacher motivation. Therefore, Null Hypothesis 18 was accepted.

TABLE 26

DISTRIBUTION OF MEANS FOR TEACHER MOTIVATION FOR PRINCIPALS AND TEACHERS IN METRO AND NONMETRO LOCATIONS (n = 158)

| | Metro | | Nonmetro | | Total | |
|---|---|---|---|---|---|---|
| Group | n | Mean | n | Mean | n | Mean |
| Principals | 15 | 3.08 | 6 | 3.18 | 21 | 3.11 |
| Teachers | 71 | 3.50 | 66 | 3.46 | 137 | 3.48 |
| Total | 86 | 3.43 | 72 | 3.43 | 158 | 3.43 |

TABLE 27

ANALYSIS OF VARIANCE FOR DIFFERENCES BETWEEN POSITION AND LOCATION ON TEACHER MOTIVATION SCORES

| Source | Sum of Squares | df | Mean Square | F | Signif. of F |
|---|---|---|---|---|---|
| Between | | | | | |
| Position | 2.493 | 1 | 2.493 | 7.68 | .006* |
| Location | 0.032 | 1 | 3.191 | 0.098 | .754 |
| 2-Way Interaction Position x Location | 0.084 | 1 | 8.419 | 0.259 | .611 |
| Residual | 50.025 | 154 | 0.325 | | |
| Total | 52.634 | 157 | 0.335 | | |

*Significant at or beyond the .05 level.

Hypothesis 19. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and the quality of instruction in terms of school size.

Similar to Hypothesis 18, the ANOVA technique was again applied to the data to determine if, in fact, there was no difference between the variable of school position (teachers and principals) and school size (large and small) in terms of the quality of instruction. The results of this test are shown in tables 28 and 29. The two-way ANOVA test produced an F of 0.972 with a significance of .326, which was not significant at the .05 level. There was no interaction between position and school size in regard to quality of instruction. Consequently, Null Hypothesis 19 was accepted.

Hypothesis 20. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and the quality of instruction in terms of school location.

The data for this hypothesis are presented in tables 30 and 31. There was no significant interaction between position and school location. Also, there was no significant main effect of school location or position, indicating that the perceptions of principals and teachers in both metro and nonmetro schools were the same.

TABLE 28

DISTRIBUTION OF MEANS FOR QUALITY OF INSTRUCTION FOR PRINCIPALS AND TEACHERS IN LARGE AND SMALL SCHOOL SIZES (n = 159)

| | Small Schools | | Large Schools | | Total | |
|---|---|---|---|---|---|---|
| Group | n | Mean | n | Mean | n | Mean |
| Principals | 9 | 3.63 | 12 | 3.26 | 21 | 3.41 |
| Teachers | 92 | 3.52 | 46 | 3.35 | 138 | 3.46 |
| Total | 101 | 3.53 | 58 | 3.33 | 159 | 3.46 |

TABLE 29

ANALYSIS OF VARIANCE FOR DIFFERENCES BETWEEN POSITION AND SCHOOL SIZES ON QUALITY OF INSTRUCTION SCORES

| Source | Sum of Squares | df | Mean Square | F | Signif. of F |
|---|---|---|---|---|---|
| Between | | | | | |
| Position | 0.039 | 1 | 3.89 | 0.232 | .631 |
| School Size | 1.47 | 1 | 1.47 | 8.76 | .754 |
| 2-Way Interaction Position x School Size | 0.163 | 1 | 0.163 | 0.972 | .326 |
| Residual | 25.963 | 155 | 0.168 | | |
| Total | 27.632 | 158 | 0.175 | | |

TABLE 30

DISTRIBUTION OF MEANS FOR QUALITY OF INSTRUCTION FOR PRINCIPALS AND TEACHERS IN METRO AND NONMETRO LOCATIONS (n = 159)

| | Metro | | Nonmetro | | Total | |
|---|---|---|---|---|---|---|
| Group | n | Mean | n | Mean | n | Mean |
| Principals | 15 | 3.41 | 6 | 3.44 | 21 | 3.42 |
| Teachers | 71 | 3.43 | 67 | 3.50 | 138 | 3.46 |
| Total | 86 | 3.43 | 73 | 3.50 | 159 | 3.46 |

TABLE 31

ANALYSIS OF VARIANCE FOR DIFFERENCES BETWEEN POSITION AND LOCATION ON QUALITY OF INSTRUCTION SCORES

| Source | Sum of Squares | df | Mean Square | F | Signif. of F |
|---|---|---|---|---|---|
| Between | | | | | |
| Position | 0.039 | 1 | 3.89 | 0.220 | .640 |
| Location | 0.179 | 1 | 0.179 | 1.015 | .315 |
| 2-Way Interaction Position x Location | 0.058 | 1 | 5.803 | 0.033 | .856 |
| Residual | 27.408 | 155 | 0.177 | | |
| Total | 27.632 | 158 | 0.175 | | |

The two-way ANOVA test produced an *F* with a significance of .856, which was not significant at the .05 level. There was no interaction between position and school location in regard to quality of instruction. Therefore, Null Hypothesis 20 was accepted.

## Summary

The data relating to the twenty hypotheses were presented in this chapter. Each hypothesis was rejected or accepted based on the results of the data collected from the 161 administrators and teachers who completed the questionnaire and from the hard data retrieved from the Georgia Department of Education via Internet.

The data for Null Hypotheses 1-6 were analyzed by Pearson *r* correlations. Based on the perceptions of the principal and teacher participants of the Pay-for-Performance Program, there were statistically significant relationships between parental involvement, teacher motivation, quality of instruction, and student achievement before and during PfP. Therefore, Null Hypotheses 1-6 were rejected.

Null Hypotheses 7-14 were tested using *t* tests to reveal statistical differences. Significant differences between means before PfP and during PfP for teachers was revealed for all four variables: parental involvement, teacher motivation, quality of instruction, and student

achievement. Significant differences were discovered for principals on the mean before PfP and during PfP for parental involvement, quality of instruction, and student achievement. The principals did not perceive a difference between the means for teacher motivation before PfP and during PfP. For all significant before/during differences, a larger mean score was observed during PfP.

The two moderating variables of school size and school location were analyzed in Hypotheses 15-20 using ANOVA. The results indicated there were no significant interactions between position and school size or position and school location. Teachers perceived teacher motivation scores higher than principals, regardless of school location or school size. Educators, both principals and teachers, in small schools perceived higher parental involvement, teacher motivation, and quality of instruction.

Chapter VI reviews the findings from this study. It also presents conclusions and implications based on the findings. The recommendations are also made in the following chapter.

# CHAPTER VI

# FINDINGS, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

## Findings of the Study

The testing of the hypotheses identified nineteen significant findings. The significant findings related to Hypotheses 1, 2, 3, 4, 5, 6, 7, 8, 10, 12a, 13, 14, and 17.

Hypothesis 1. There is no significant relationship between parental involvement before PfP and parental involvement during PfP as perceived by principals.

The findings of Hypothesis 1 revealed that there were significant relationships in principals' perceptions about parental involvement and the PfP program. The parental involvement during PfP had a higher mean rating score than the parental involvement before PfP. The statistical data indicated that both the before PfP and during PfP parental involvement scored well; however, the difference between the two groups was significant. Hypothesis 1 was rejected.

Hypothesis 2. There is no significant relationship between parental involvement before PfP and parental involvement during PfP as perceived by teachers.

The test for Hypothesis 2 indicated that there were significant relationships in the means of the perceptions of the teachers toward parental involvement before PfP and parental involvement during PfP. The teachers perceived the parents to be greatly involved in the school and its activities during PfP. Hypothesis 2 was rejected.

Hypothesis 3. There is no significant relationship between teacher motivation before and teacher motivation during PfP as perceived by principals.

The test of Hypothesis 3 also revealed that there were significant relationships in the means of the principals' perceptions of teacher motivation before and during PfP. The teacher motivation was perceived by the principals to be greater during participation in PfP. Hypothesis 3 was rejected.

Hypothesis 4. There is no significant relationship between teacher motivation before PfP and teacher motivation during PfP as perceived by teachers.

Hypothesis 4 was rejected. The test of Hypothesis 4 verified that there was a significant relationship between teacher motivation before PfP and teacher motivation during PfP, as perceived by teachers. The perceptions of the teachers indicated that teacher motivation was significantly higher during participation in the PfP Program.

Hypothesis 5. There is no significant relationship between quality of instruction before PfP and quality of instruction during PfP as perceived by principals.

Hypothesis 5 was rejected. The test of Hypothesis 5 verified that there was a significant relationship between the PfP program and the quality of instruction. The perceptions of the principals indicated that the quality of instruction increased after participating in the PfP Program.

Hypothesis 6. There is no significant relationship between quality of instruction before PfP and quality of instruction during PfP as perceived by teachers.

The test of Hypothesis 6 revealed that there was a significant relationship in the means of the teachers' perceptions with regard to the quality of instruction. The teachers rated a higher mean score during PfP. Hypothesis 6 was rejected.

Hypothesis 7. There is no significant difference between parental involvement before PfP and parental involvement during PfP as perceived by principals.

The test of Hypothesis 7 indicated that there were significant differences between parental involvement before and during PfP. The principals' perceptions indicated that the parental involvement in the school during PfP rated higher than the parental involvement before PfP. Hypothesis 7 was rejected.

Hypothesis 8. There is no significant difference between parental involvement before PfP and parental involvement during PfP as perceived by teachers.

The test of Hypothesis 8 also revealed that there were significant differences in the means of teachers' perceptions with regard to parental involvement. The teachers indicated that parental involvement was greater during PfP than before PfP. Null Hypothesis 8 was rejected.

Hypothesis 9. There is no significant difference between teacher motivation before PfP and teacher motivation during PfP as perceived by principals.

Hypothesis 9 was accepted. The test of Hypothesis 9 verified that there was no significant differences between the teacher motivation before PfP and the teacher motivation during PfP. The perception of the principals indicated that there was not a significant difference from the teacher motivation before PfP to the teacher motivation during PfP.

Hypothesis 10. There is no significant difference between teacher motivation before PfP and teacher motivation during PfP as perceived by teachers.

Hypothesis 10 was rejected. The test of this hypothesis revealed a mean score for teacher motivation before PfP of 3.21 and a mean score during PfP of 3.48. That was a significant mean score and indicated that the teachers felt that the motivation increased after participating in the PfP Program.

Hypothesis 11. There is no significant difference between the student reading achievement before PfP and the student reading achievement during PfP in terms of (a) Grade 3, (b) Grade 5, and (c) Grade 8.

No significant differences were found on student reading achievement before PfP and during PfP for any of the three grades studied. Therefore, Hypotheses 11a, 11b, and 11c were accepted.

Hypothesis 12. There is no significant difference between the student math achievement before PfP and the student math achievement during PfP in terms of (a) Grade 3, (b) Grade 5, and (c) Grade 8.

A significant difference was found between third grade math achievement scores before PfP and during PfP. Therefore, Hypothesis 12a was rejected for third grade math. No significant difference was found between math achievement scores before and during PfP for the fifth or eighth grades. Hypotheses 12b and 12c were accepted for those grades.

Hypothesis 13. There is no significant difference between quality of instruction before PfP and quality of instruction during PfP as perceived by principals.

The test of Hypothesis 13 also revealed that there were significant differences in the means of principals' perceptions with regard to the PfP program and the quality of instruction. The principals felt that the quality of

instruction was significantly high during PfP. Hypothesis 13 was rejected.

Hypothesis 14. There is no significant difference between quality of instruction before PfP and quality of instruction during PfP as perceived by teachers.

Hypothesis 14 was rejected. The findings showed that, based on the teachers' perceptions, there was a significant increase from the quality of instruction before PfP to the quality of instruction during PfP. The quality of instruction differed in a positive direction during PfP, as indicated by the teachers.

Additional tests were done on selected moderating variables after an analysis of data was completed. Those variables included the school location and the school size.

Hypothesis 15. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and parental involvement in terms of school size.

The test for Hypothesis 15 revealed that there were no significant interactions between position (teacher and principal) and the size of the school, indicating that there were no differences in perceptions of principals and teachers on the parental involvement in the school for the construct of school size. There was no significant main effect on position, indicating that there was no difference between principals and teachers on their perceptions of

parental involvement. There was a significant main effect of school size on the perception of the principals and teachers in small schools as compared to the principals and teachers in large schools. Hypothesis 15 was accepted.

Hypothesis 16. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and parental involvement in terms of school location.

Hypothesis 16 was accepted. The test of Hypothesis 16 concluded that there was no significant difference between Pay-for-Performance and parental involvement in metro and nonmetro schools, as perceived by both the principals and teachers.

Hypothesis 17. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and teacher motivation in terms of school size.

The test of Hypothesis 17 revealed several interesting things. There was no interaction; however, there was a significant main effect (position and school size). There was a significant difference between small schools and large schools in the principals' and teachers' perceptions of teacher motivation. The educators in small schools felt teacher motivation to be higher than the educators in large schools. In addition, the teachers in both small and large schools felt that teacher motivation was higher than did

the principals in those same schools. Hypothesis 17 was rejected.

Hypothesis 18. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and teacher motivation in terms of school location.

The test of Hypothesis 18 revealed that the metro and nonmetro teachers had a higher mean score on teacher motivation than the principals in both locations. The teachers again felt that teacher motivation was higher than did the principals. There was no other significance indicated; no interaction between the main effects and none between metro and nonmetro schools. Hypothesis 18 was accepted.

Hypothesis 19. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and the quality of instruction in terms of school size.

The test of Hypothesis 19 also revealed that there were no significant differences between the teachers' and principals' perceptions in the small schools and the large schools. It indicated that the educators in small schools believed that the quality of instruction was better than did the educators of larger schools. Hypothesis 19 was accepted.

Hypothesis 20. There is no significant difference between principals' and teachers' perceptions of Pay-for-Performance and the quality of instruction in terms of school location.

Hypothesis 20 was accepted. The test of Hypothesis 20 revealed that there was no significant difference between the principals' and teachers' perceptions of the quality of instruction based on metro and nonmetro schools. There was no interaction between the main effects of location and position in regard to Pay-for-Performance.

## Conclusions Based on the Findings

This study found that teachers perceived parental involvement, teacher motivation, and quality of instruction to be improved during PfP. The teachers were more positive than the principals on these issues while participating in the Pay-for-Performance Program. The teachers felt that parental involvement, teacher motivation, and the quality of instruction were all higher during PfP. The data show that all areas of student achievement increased after PfP was begun, with the exception of fifth grade reading; and eighth grade math was maintained at the same mean score as before participating in PfP. Most teachers choose to receive additional pay for more work rather than for demonstrating high performance (Cornett and Gaines 1994). Many schools' PfP plans include objectives with action plans to assist in

the attainment of their goals. In essence, the teachers are doing more work, while exhibiting measurably higher performance for both themselves and the students.

In analyzing the moderating variables of school location (metro and nonmetro) and school size, the principals and teachers in small schools perceived higher parental involvement. The literature reviewed on school size and class size suggested that smaller schools were better, especially for younger children (primary and elementary).

The small schools give the students a sense of belonging. Research on the relationship between size of school population and student performance is inconclusive (Berkey 1996), although one can readily see that a smaller ratio of students per adult (teacher) can yield more interaction between the two groups. Some educators believe that smaller school populations lessen discipline problems (Coeyman 1990).

The findings also showed a difference existed in perceptions of principals and teachers in regard to the level of teacher motivation exhibited by the teachers. The teachers saw themselves as being highly motivated, more so than the principals. Although school administrators agree that motivation in an organization is crucial, they fail to see teachers as motivated as the teachers see themselves. Because it was the teacher whose motivation was addressed in

this study, it positively verifies that teachers perceive teachers to be highly motivated.

The findings of this study also revealed that no difference in perceptions of the principals and teachers of various school locations (metro and nonmetro) existed with the quality of instruction. It should be noted, however, that survey items dealing with direct student instruction were rated more positively than other statements in this area.

Georgia school principals and teachers generally perceive that the Pay-for-Performance Program has had a positive effect upon education of students, particularly in the areas of parental involvement, student achievement, and quality of instruction.

## Implications

Based on the findings of this study, school size makes a difference. The teachers and principals in the smaller schools perceived the parental involvement to be higher. Those schools give the parents and students alike a sense of belonging (Coeyman 1990). In addition, the educators in the small schools believed the quality of instruction to be greater than did the educators from the large schools. Both the principals and teachers in the small schools felt that teacher motivation was greater than did those in the large schools, although the teachers in both

the large and small schools felt teacher motivation to be greater than the principals in both types of schools. The school size had a greater impact on the tested constructs than the school locations. In testing the variables there were no significant findings on school location.

The Pay-for-Performance Program is a positive school initiative for improving student achievement, parental involvement, teacher motivation, and quality of instruction, especially in combination with a small school size. School districts that develop and implement incentive programs should be provided with financial assistance. The Georgia Pay-for-Performance Program shows a positive significance, according to the principals' and teachers' perceptions. This program and others similar to it should be highly encouraged for implementation in all of Georgia's schools to bring about school improvements in parental involvement, teacher motivation, student achievement, and quality of instruction.

Based upon the findings of the fifth grade reading scores, this researcher was curious as to why this particular subject and grade level's mean score fell significantly lower while participating in PfP. Further investigation revealed that several occurrences took place with this particular grade level during the 1996-97 school year. Several of the DeKalb County schools orally reported an influx of non-English-speaking students (immigrants and refugees). Because these students could not speak the

English language, they did not perform very well on this portion of the ITBS test, although many of those students did very well on the math, especially on the computation portion of the ITBS. That fact probably lowered the fifth grade reading scores. In addition, the Georgia Department of Education changed the ITBS form that was administered to the fifth graders during 1996-97 from Form K to Form M. The previous Form K had been administered to the students for several years. The administration of a different form test at the same level may have had a casual impact upon the test results. This minimal effect may continue for one or two years, as the teachers adjust their instruction and become more familiar with Form M.

## Recommendations

Based upon the findings of this study, recommendation for the continuation of the Pay-for-Performance Program is highly suggested. This program has positive effects on parental involvement, student achievement, quality of instruction, and teacher motivation. One teacher respondent reported, "I know that you're looking for 'numbers' but I just want to tell you there was an energy in the air during PfP--more teamwork among the entire school and more checks and balances." The old cliche, "What is monitored gets done," stands out at this point.

Pay-for-Performance made significantly positive differences in schools. Principals and school staffs should embrace the program and write their school's PfP plan. Participating schools have made school-wide improvements, and it seems to bring about positive school-wide collaboration among the staff because everyone is working together toward the same goals.

The findings of this study support continuation of the PfP Program. The Georgia Department of Education should continue funding the PfP Program, and school boards should find funds to support additional incentive programs. However, while Georgia state-level officials view PfP as a school-wide improvement plan, the school-level educators view it as a monetary incentive. The entire area of incentive and performance-based pay plans in education is the subject of much controversy and diversities of opinion (Duttweiler 1986, Johnson 1986). Given the amount of money, interest, and the findings of this study, a great deal more research needs to be conducted on PfP and similar incentive programs to guide professional, public, and legislative opinion.

A longitudinal research study is recommended. Studies on the relationship of size of school population and student academic performance are suggested. The knowledge of student success in a smaller school population versus the level of student success in larger schools can be used in

making educational decisions relative to school size. It is recommended that further study be conducted on school size.

## Summary

This chapter provides the specific findings and recommendations based upon the findings of this study. These recommendations are for use in the Georgia school systems. The following recommendations focus on school size, student achievement, parental involvement, quality of instruction, and teacher motivation.

1. It is recommended that school systems find ways to make schools smaller. If not the entire school, then the school class size must be made smaller. Smaller schools have greater teacher motivation and student achievement.

2. It is recommended that principals and school staff participate in the Pay-for-Performance Program. This program has a positive relationship on teacher motivation, parental involvement, quality of instruction, and student achievement.

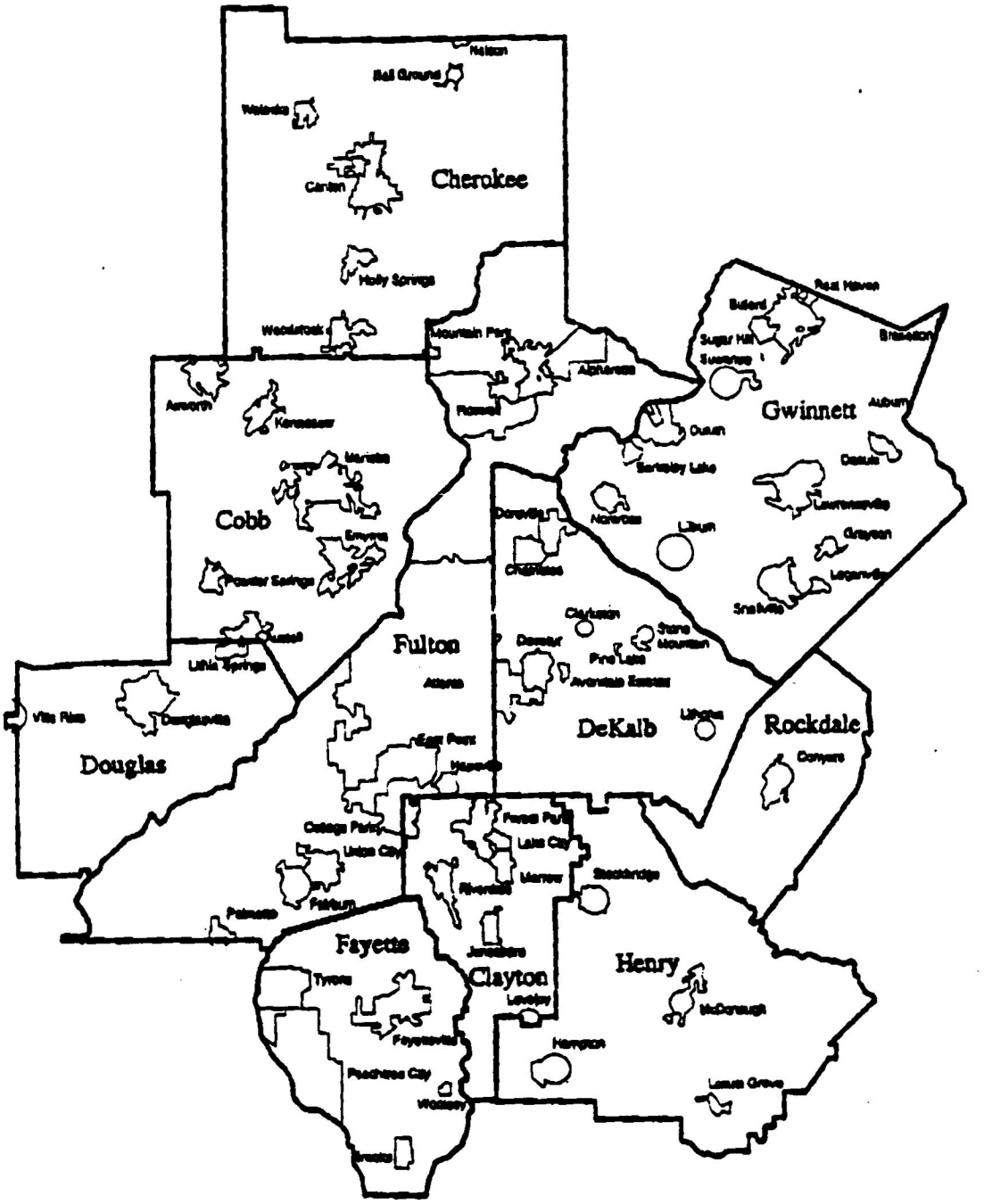
3. It is recommended that state departments, school boards, and principals find funds and/or creative ways to offer teachers extrinsic rewards (monetary rewards) for excellent performance of job functions.

4. Finally, it is recommended that additional research be done on Pay-for-Performance and similar

incentive programs to guide professional, public, and legislative opinion.

APPENDIX A

TEN-COUNTY METROPOLITAN ATLANTA AREA




Source: Map supplied by Atlanta Regional Commission, faxed to author. (Only for purpose of identifying the counties; community names are not relevant to this research.)

APPENDIX B

THEORETICAL FRAMEWORK

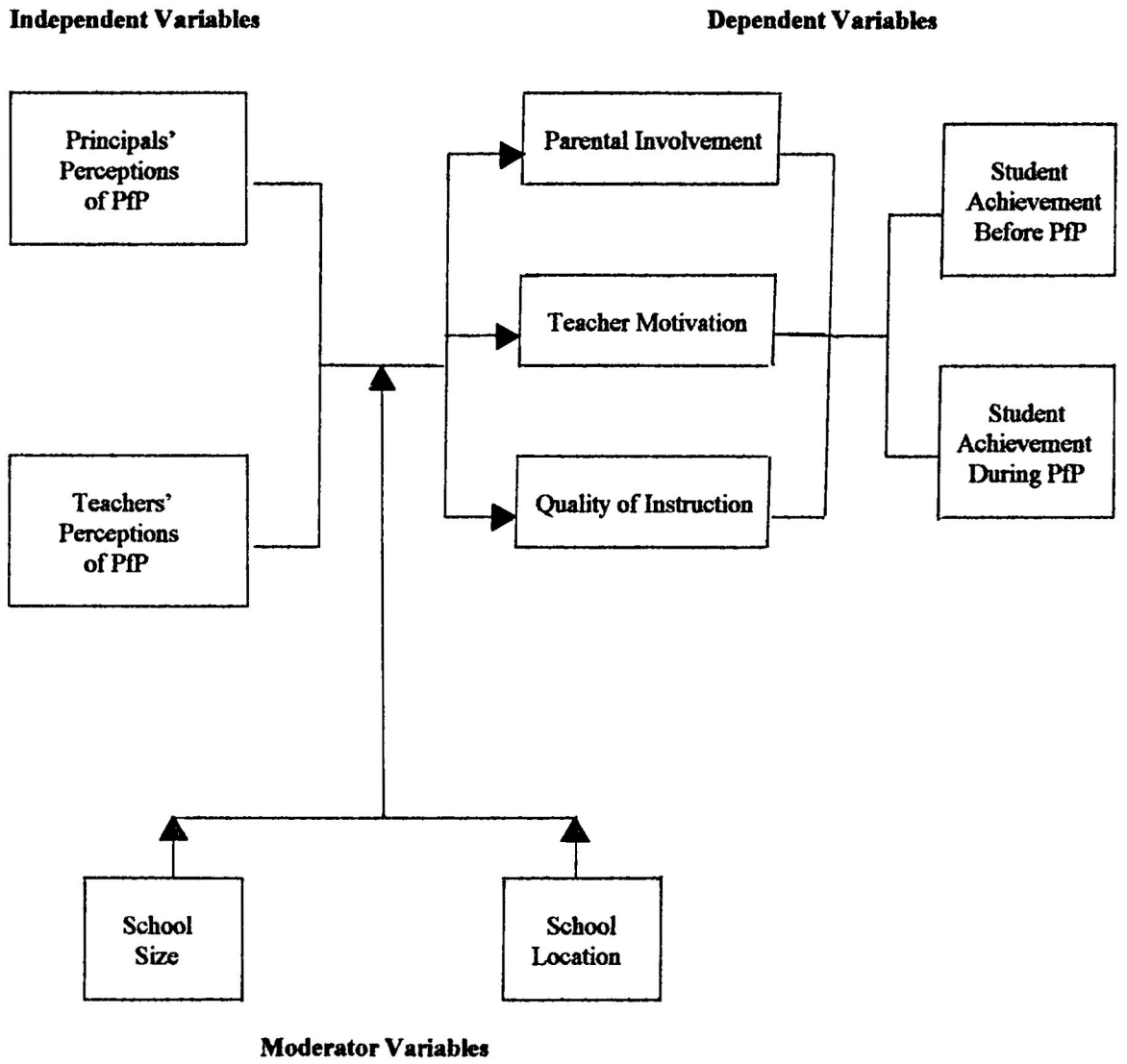



Fig. 1. Figural representation of the theoretical framework.

APPENDIX C

CORRESPONDENCE CONCERNING THE STUDY

CLARK ATLANTA UNIVERSITY

September 29, 1998

To Whom It May Concern:

Please be advised that Ms. Mae O. Allen has successfully defended her dissertation proposal entitled "A Comparative Study of Principals and Teachers Perception of the Effects of the Pay-For-Performance Incentive Program in Selected Georgia Schools" on July 23, 1998. She is now ready to conduct her data analysis and your assistance is greatly needed and appreciated in helping her with this request.

If further information is needed, please feel free to call me at (404) 880-8493.

Sincerely,

William H. Denton, Ph.D.
Chairman
Educational Leadership

WHD/mht

Appendix C--continued

**From:** Ganga Persaud
**To:** MCNAIR2.Tilsones.CooperD, STONEMTN2.PinRidES.Mille...
**Date:** 12/10/98 11:21am
**Subject:** Approval for Dissertation

Dear Colleagues,

The Department of Research and Evaluation has approved the proposal of Mae Allen, ILT of Avondale Elemenatry School for data collection.

She is doing her dissertation, and requires your support in collecting data. I know its late in the year, but she is one of our own, and if you could help, your asistant would be greatly appreciated.
If by chance, you cannot help, please let her know your extenuating circumstances.
Thanks for your consideration.
ganga persaud

**CC:** AVONDALE.AvondaES.AllenM

Appendix C--continued

BARBARA J. LACKEY
PRINCIPAL

JAMES R. HALLFORD
SUPERINTENDENT

DeKalb County School System
**AVONDALE ELEMENTARY SCHOOL**
10 Lakeshore Drive
Avondale Estates, Georgia 30002-1499
(404) 294-5324

September 27, 1998

Dr. John W. Rhodes
Office of the Director of School Renewal and Improvement Programs
1954 Twin Towers East
Atlanta, Georgia 30334

Dear Dr. Rhodes,

I am an employee of DeKalb County School System and a graduate student at Clark Atlanta University, pursuing an Educational Doctoral degree in Educational Leadership. As a part of my degree requirements, I am to complete a research study, and have chosen student achievement as one of my variables, due to my interest in that area.

Student achievement refers to the academic performance of students on a standardized tests, such as the Iowa Test of Basic Skills (ITBS). The areas of reading comprehension and math total for selected schools in Georgia will be analyzed. The schools selected were based upon their success in winning the Pay-for-Performance in 1996-97. The schools' building grade level profiles in grades 3, 5, and 8 will be compared against their 1994-95 and 1995-96 scores.

I would greatly appreciate you completing the attached form, and returning it to me by October 6. The privacy of these schools will be maintained. In the study, the elementary schools will be identified as schools A-Y, and the middle schools will be identified as schools 1-10. After the research is completed, all identifying materials will be destroyed.

I am thanking you in advance for your assistance and permission to conduct this study.

Sincerely,

Mae O. Allen

cc: Jerry McCoy

Appendix C--continued

**Georgia Department of Education**
**Office of the State Superintendent of Schools**
**Twin Towers East**
**Atlanta, Georgia 30334-5001**
**Web Page: http://www.doe.k12.ga.us**

**Linda C. Schrenko**
***State Superintendent of Schools***

**(404) 657-7637 Fax (404) 651-9111**
**October 1, 1998**

Ms. Mae O. Allen
Avondale Elementary School
10 Lakeshore Drive
Avondale Estates, GA 30002-1499

Dear Ms. Allen:

Thank you for your letter dated September 29, 1998. The information you requested is not available in my office. ITBS scores are available through the Department's Accountability Unit and is accessible through the internet. I have spoken with Dr. Jerry McCoy and he indicated that he would contact you and provide further assistance to you in accessing the information you need through the internet.

Thank you for your interest in the Pay for Performance Program. Good luck on the completion of your research study and your degree.

Sincerely,

John W. Rhodes, Director
School Renewal and School Improvement Programs

/jr
cc: Dr. Jerry McCoy

# APPENDIX D

## SURVEY INSTRUMENT

*Think about your school before Pay for Performance was instituted (in 1995-1996). Then use the scale on the left to respond to each item.*

*Then think of your school while you were participating in the Pay for Performance program (in 1996-1997). Use the scale on the right to again respond to each item.*

*There is no right or wrong answer; however, it is important that you respond to every item.*

| **Before PfP (1995-1996)** | | | | | | **During PfP (1996-1997)** | | | |
|---|---|---|---|---|---|---|---|---|---|
| Strongly Agree | Agree | Disagree | Strongly Disagree | | | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 4 | 3 | 2 | 1 | 1. | All staff understand their responsibility for basic skill achievement. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 2. | Teachers teach the basic skill objectives identified for their grade level to all their students. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 3. | The principal/assistant principal discuss lesson plans with teachers. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 4 | The principal/assistant principal is involved in planning for instruction. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 5. | Teachers and the principal analyze test results to plan instructional program modifications. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 6. | Student assessment information (such as criterion-referenced tests, skills checklists, etc.) is taken into consideration when planning for instruction. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 7. | The principal leads frequent formal discussions concerning instruction and student achievement. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 8. | The principal/assistant principal is accessible to deal with instructional problems. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 9. | Very little instructional time is lost as a result of noise, announcements, discipline and/or organizational activities. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 10. | Teachers design instruction with their students' needs in mind. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 11. | Children with special needs are given special consideration when planning for instruction. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 12. | Collaborative curriculum planning exists within each grade level. | 4 | 3 | 2 | 1 |

Appendix D--continued

| Before PfP (1995-1996) | | | | | During PfP (1996-1997) | | | |
|---|---|---|---|---|---|---|---|---|
| Strongly Agree | Agree | Disagree | Strongly Disagree | | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 4 | 3 | 2 | 1 | 13. Teachers teach core content material. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 14. Teachers feel responsible for students' performance. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 15. Teachers help make adjustments in the school's curriculum. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 16. Teachers adjust the pace of instruction to meet student needs. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 17. Teachers engage students in diverse instructional activities to enhance learning. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 18. Teachers participate in staff development activities to improve their instructional skills. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 19. Each teacher is formally evaluated on his or her performance annually. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 20. Teachers are always seeking new information to enhance the instructional program. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 21. There is strong instructional leadership from the principal. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 22. There is a formative evaluation process in place. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 23. Teachers modify their teaching styles to meet student learning styles. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 24. In faculty meetings, there is a feeling of "let's get things done!" | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 25. Teachers willingly seek out information and help. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 26. Teachers talk about staying here rather than transferring to another school or system. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 27. Teachers voluntarily work long hours to achieve objectives. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 28. Teachers in this school are concerned with performance rather than "getting by" and picking up their checks. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 29. Teachers encourage students to do their best. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 30. Teachers encourage their colleagues to work hard for the school. | 4 | 3 | 2 | 1 |

Appendix D--continued

| Before PfP (1995-1996) | | | | | During PfP (1996-1997) | | | |
|---|---|---|---|---|---|---|---|---|
| Strongly Agree | Agree | Disagree | Strongly Disagree | | Strongly Agree | Agree | Disagree | Strongly Disagree |
| 4 | 3 | 2 | 1 | 31. Teachers willingly give extra help to students to help them succeed. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 32. Teachers readily assist each other in attaining the school goals. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 33. Teachers in this school are seldom absent from work. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 34. Many parents visit the school to attend special programs, athletic events or meetings. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 35. Parents are involved in decision making activities which affect the school. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 36. Most parents participate in the school PTA. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 37. Most parents seek out information about their child's educational progress. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 38. Most parents teach their children appropriate behavior and discipline for school. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 39. Parents care about their child's school performance. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 40. Parents help to shape the school's vision. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 41 Parents have a role in evaluating the effectiveness of the school programs. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 42 Many parents help with fundraising for school. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 43 Many parents attend parent conferences. | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 44 Most parents participate in parenting workshops or inservices | 4 | 3 | 2 | 1 |
| 4 | 3 | 2 | 1 | 45 Many parents volunteer at the school. | 4 | 3 | 2 | 1 |

**Please turn the page** ☞

Appendix D--continued

## Demographic Information

1. **What grade level(s) did you teach during the 1995-1996 school year?** _____

2. **What grade level(s) did you teach during the 1996-1997 school year?** _____

3. **What is your school population (size)?** _____

4. **What position do you hold?**

_____ **Administrator (principal, assistant principal, part-time teacher/part-time administrative assistant, instructional lead teacher or curriculum specialist)**

_____ **Teacher (classroom, special education, music, art, PE, etc.)**

Thank you for your responses.

# APPENDIX E

## COVER LETTERS TO PRINCIPALS AND TEACHERS

BARBARA J. LACKEY
PRINCIPAL

JAMES R. HALLFORD
SUPERINTENDENT

DeKalb County School System
**AVONDALE ELEMENTARY SCHOOL**
10 Lakeshore Drive
Avondale Estates, Georgia 30002-1499
(404) 294-5324

Dear Fellow Educator:

You are a faculty member of a school that won a Pay for Performance award in 1996-1997. Congratulations!

As a member of this group of teachers, you have information that will be helpful in a study I am conducting. I am interested in your perceptions of teacher motivation, parental involvement and quality of instructions in your school before and during 1996-1997. Your response is important to the success of this study because of the small number of faculties that won this award in 1997.

Included is an envelope for you to seal the completed questionnaire in and return to your principal. All of the sealed envelopes from you and your colleagues will be forwarded to me in one package. Information from the questionnaires will not be identified by school or respondent. Your anonymity is assured through this method

Thank you for your participation. If you have any questions please do not hesitate to call me at 404-294-5324 or 404-294-0763.

Sincerely,

Mae O. Allen

Mae O. Allen

Appendix E--continued

BARBARA J. LACKEY
PRINCIPAL

JAMES R. HALLFORD
SUPERINTENDENT

DeKalb County School System
**AVONDALE ELEMENTARY SCHOOL**
10 Lakeshore Drive
Avondale Estates, Georgia 30002-1499
(404) 294-5324

Dear Principal:

The subject of student achievement in our schools need urgent attention. Your school was a winner in the Pay for Performance Program in 1997. As a result, you and your staff are in a unique position to help me with a study about the effectiveness of Pay for Performance on student achievement.

I would appreciate your assistance in the distribution and collection of a questionnaire in which staff give their perceptions about teacher motivation, parental involvement and quality of instructions in your school before and during 1996-1997. Please survey one-half of your teaching staff, particularly the teachers who were at the school during the 95-96 and 96-97 school years. In addition, please complete a survey for yourself or another administrator at your school may do so. Your cooperation is important to the success of this study because of the small number of faculties that won this award in 1997.

If possible, would you distribute and collect the questionnaires during a faculty meeting? Individual envelopes have been provided for staff members to seal their responses and return to a central location. I have provided a postage paid return envelope for you to use in returning them to me.

Thank you very much for your help. If you have any questions please do not hesitate to call me at 404-294-5324 or 404-294-0763.

Sincerely,

Mae O. Allen

Mae O. Allen

Appendix E--continued

Dear Educator:

I sent an important questionnaire to you a few weeks ago asking about your Pay-for-Performance experience. If you and your staff have not yet completed and returned this questionnaire, will you please take time to do it today? Your reply is important to educational research and will help in the designing of new programs and teaching strategies to improve student achievement.

Please return your questionnaires today! Thank you.

Cordially,

Mae Allen

# APPENDIX F

## PAY FOR PERFORMANCE AWARD RECIPIENTS BY YEAR

| School | Code | System | Total 1994 | Total 1995 | Total 1996 | Total 1997 |
|---|---|---|---|---|---|---|
| Capitol View Elem | 761-4564 | Atlanta | | | | $64,000 |
| Harper-Archer HS | 761-4564 | Atlanta | | | | $148,000 |
| Miles Elem | 761-4564 | Atlanta | | $52,000 | | |
| Mitchell Elem | 761-5564 | Atlanta | | | $62,000 | |
| E. Rivers Elem | 761-5564 | Atlanta | | | | $92,000 |
| South Atlanta HS | 761-0195 | Atlanta | | $180,000 | | |
| Sutton Middle | 761-3067 | Atlanta | | $124,000 | | $128,000 |
| Sylvan Middle | 761-3067 | Atlanta | | | | $138,000 |
| Thomasville Heights El | 761-3067 | Atlanta | | | | $98,000 |
| West Fulton MS | 761-0293 | Atlanta | | $126,000 | $132,000 | $134,000 |
| Woodson Elem | 761-0293 | Atlanta | | | | $78,000 |
| Northside Elem | 605-5052 | Baldwin | | | | $68,000 |
| Banks County Primary | 606-1089 | Banks | | | | $62,000 |
| County Line Elem | 607-3050 | Barrow | | | | $70,000 |
| Mission Road Elem | 608-0186 | Bartow | | | | $102,000 |
| Appling MS | 611-5050 | Bibb | | | | $92,000 |
| Bleckley County MS | 612-0277 | Bleckley | | | | $86,000 |
| Buford Elem | 764-0196 | Buford | | | | $110,000 |
| Jackson Primary | 618-0194 | Butts | | | | $104,000 |
| Cartersville Primary | 767-0177 | Cartersville | | | | $130,000 |
| Alps Road Elem | 629-5054 | Clarke | | $74,000 | | $78,000 |
| Baker Elem | 633-0189 | Cobb | | $128,000 | | |
| Clarkdale Elem | 633-2054 | Cobb | | | $78,000 | |
| Davis Elem | 633-0388 | Cobb | | $102,000 | | $104,000 |
| Ford Elem | 633-0292 | Cobb | | $168,000 | | |
| Griffin MS | 633-2560 | Cobb | | | $150,000 | |
| Kincaid Elem | 633-0273 | Cobb | | $112,000 | | |
| LaBelle Elem | 633-3062 | Cobb | $102,000 | | | |
| Mabry MS | 633-0178 | Cobb | | $146,000 | | |
| Sedalia Park Elem | 633-5067 | Cobb | $80,000 | | $86,000 | |
| Shallowford Falls Elem | 633-0291 | Cobb | $94,000 | | | |
| Simpson MS | 633-0389 | Cobb | | | $126,000 | |
| Sprayberry HS | 633-0373 | Cobb | $244,000 | | | |
| Tritt Elem | 633-0181 | Cobb | $116,000 | | | |
| Columbia MS | 636-2050 | Columbia | | | $106,000 | |
| N. Columbia Elem | 636-3052 | Columbia | | | $60,000 | $62,000 |
| Johnson Elem | 643-3052 | Decatur | | | | $68,000 |
| Avondale Elem | 644-5050 | DeKalb | | $130,000 | | |
| Hooper Alexander Elem | 644-1050 | DeKalb | | | $114,000 | |
| McNair Junior High | 644-1057 | DeKalb | | $150,000 | | |
| Midvale Elem | 644-2062 | DeKalb | | | $78,000 | |

Appendix F--continued

| School | Code | System | Total 1994 | Total 1995 | Total 1996 | Total 1997 |
|---|---|---|---|---|---|---|
| Murphey Candler Elem | 644-4052 | DeKalb | | | | $72,000 |
| Pine Ridge Elem | 644-0190 | Dekalb | | | $104,000 | $124,000 |
| Rainbow Elem | 644-4064 | DeKalb | | | $100,000 | |
| Sexton Woods Center | 644-6377 | DeKalb | | | | $68,000 |
| Terry Mill Elem | 644-5068 | DeKalb | | | | $104,000 |
| Tilson Elem | 644-2069 | DeKalb | | | | $90,000 |
| Woodridge Elem | 644-0675 | DeKalb | | | | $100,000 |
| Woodward Elem | 644-1071 | DeKalb | | | | $108,000 |
| Douglas County HS | 648-4050 | Douglas | | | | $214,000 |
| Adrian Elem | 653-1050 | Emanuel | | | | $28,000 |
| Fayetteville Elem | 656-4050 | Fayette | | | | $80,000 |
| Pepperell MS | 657-0273 | Floyd | | | | $114,000 |
| Mashburn Elem | 658-0176 | Forsyth | | | | $68,000 |
| Midway Elem | 658-1052 | Forsyth | | | | $104,000 |
| Camp Creek MS | 660-0186 | Fulton | | | $168,000 | |
| Chattahoochee HS | 660-0392 | Fulton | | | | $374,000 |
| Crabapple Crossing El | 660-0193 | Fulton | | | $144,000 | |
| Dolvin Elem | 660-0180 | Fulton | | | $166,000 | |
| Haynes Bridge MS | 660-0384 | Fulton | | | $230,000 | |
| Independence HS | 660-0386 | Fulton | | | | $64,000 |
| Milton HS | 660-2060 | Fulton | | | | $310,000 |
| Roswell HS | 660-0191 | Fulton | | | $268,000 | |
| Sandy Springs MS | 660-0492 | Fulton | | | $132,000 | |
| Tri-Cities HS | 660-0691 | Fulton | | | | $288,000 |
| Arcado Elem | 667-0382 | Gwinnett | | | | $114,000 |
| Jackson Elem | 667-0395 | Gwinnett | | | | $190,000 |
| Lilburn Elem | 667-5554 | Gwinnett | | | | $154,000 |
| Peachtree Elem | 667-5056 | Gwinnett | | | | $168,000 |
| Pinckneyville MS | 667-0186 | Gwinnett | | | $142,000 | |
| Fairview Elem | 668-5050 | Habersham | | | $40,000 | |
| West Hall MS | 669-0294 | Hall | | | | $154,000 |
| North Jackson Elem | 678-3050 | Jackson | | | | $44,000 |
| Lee County Primary | 688-0187 | Lee | $108,000 | | | |
| Lowndes County HS | 692-5050 | Lowndes | | | | $264,000 |
| Morgan Co. Elem. | 704-0191 | Morgan | | | $88,000 | |
| Morgan Co. Middle | 704-5050 | Morgan | | | $106,000 | |
| Arnold MS | 706-2050 | Muscogee | | | | $110,000 |
| Eastway Elem | 706-4058 | Muscogee | | | $86,000 | |
| Edgewood Elem | 706-1060 | Muscogee | $58,000 | $58,000 | $60,000 | $64,000 |
| Kendrick HS | 706-1064 | Muscogee | | | | $172,000 |
| Livingston Elem | 707-3050 | Newton | | | $90,000 | |

Appendix F--continued

| School | Code | System | Total 1994 | Total 1995 | Total 1996 | Total 1997 |
|---|---|---|---|---|---|---|
| Abney Elem | 710-3052 | Paulding | | | | $86,000 |
| Rabun Gap School | 719-3550 | Rabun | | | | $42,000 |
| Glenn Hills HS | 721-3054 | Richmond | | | | $146,000 |
| Salem HS | 722-0192 | Rockdale | | | | $168,000 |
| East Central Elem | 785-0275 | Rome | | $66,000 | $74,000 | |
| Elm Street Elem | 785-1052 | Rome | $56,000 | $54,000 | $56,000 | $60,000 |
| Rome MS | 785-0293 | Rome | $114,000 | $112,000 | $112,000 | $108,000 |
| Social Circle Elem | 786-1050 | Social Circle | $76,000 | | | |
| Stewart County Elem | 728-0192 | Stewart | | | | $58,000 |
| Chattanooga Vally Elem | 746-4050 | Walker | | | | $90,000 |
| Odum Elem | 751-3050 | Wayne | | | | $48,000 |
| Westside MS | 755-0775 | Whitfield | | | | $80,000 |
| Cohutta Elem | 755-2050 | Whitfield | | | | $48,000 |
| | | | $1,048,000 | $1,782,000 | $3,096,000 | $6,694,000 |

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